IQLR

International QL Report

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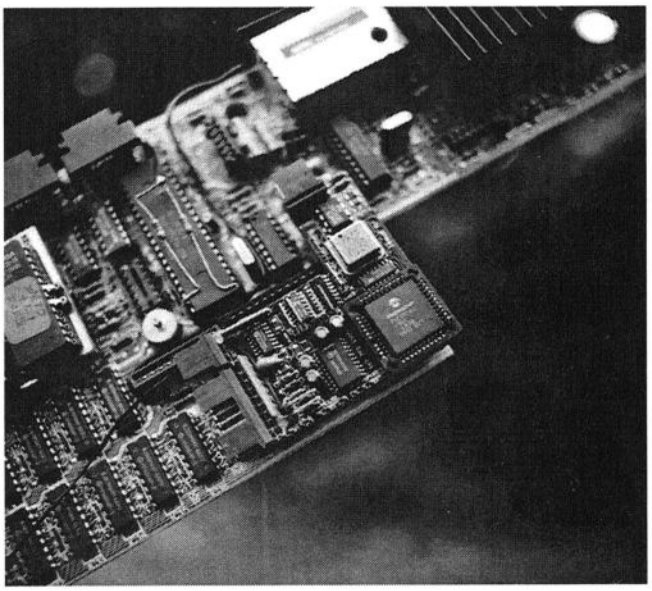

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News, reviews and articles for the QL and compatibles

Volume 2 Issue 4 Merging Issue

IQLR.....

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We welcome your comments, suggestions and articles. YOU make IQLR possible. We are constantly changing and adjusting to meet your needs and requirements. Articles submitted for publication should be on a 3.5" disk in Quill or Text87 format. To enhance your article you may wish to include Saved Screen dumps. PLEASE send a hard copy of all screens to be included, don't forget to specify where in the text you would like the screens placed.

Article and Advertising DEADLINES are as follows:

Issue 1	10 April
Issue 2	10 June
Issue 3	10 August
Issue 4	10 October
Issue 5	10 December
Issue 6	10 February

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IQLR is produced using the following equipment : A Tower Cased QL with Super Gold Card, Qubide Hard Disk Interface, superHermes, Minerva MK II and a 486 PC, driven by a 5Meg QXL. Masters are produced using a Hewlett Packard DeskJet 520 and an Epson 800+ InkJet printers.

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Advertisers.....

Joining Hands - QReview & IQLR

Romford, Essex, UK- Bruce Nicholls *Newport, Rhode Island, USA - Bob Dyl*

Dear Reader,

I have enjoyed producing QReview for the past two years, unfortunately I can no longer spend the amount of time on the magazine as I would like. Each issue took a month of preparation plus the numerous behind the scenes telephone calls, allocating review positions etc., etc.

I have therefore decided to cease production of QReview. I will, however be a very visable and active participant in the QL community as QUO VADIS DESIGN publishing old and new software for the QL and its compatibles.

To best serve the QL community, as of this issue , QReview is merging with IQLR. This means that I will still have an active outlet for reviews, news and articles but with less of the administration duties and the late nights.

YOU WILL still be kept informed of the latest developments in the QL community but at a faster pace than I could ever produce (IQLR is published bi-monthly. I have arranged that for every two QReview issues you have coming, you will receive one issue of IQLR. For instance, if you have one or three QReview issues left you will receive one IQLR or two IQLR issues respectively

I hope you enjoy reading IQLR as much as I do and I look forward to being a major contributor to the pages of IQLR.

Long Live the QL !!

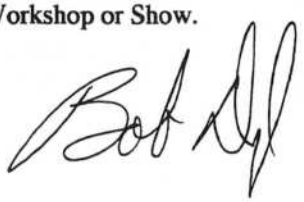
Dear QReview Reader,

It's with mixed emotions that I welcome you to the IQLR family. Being a QL user first and a publisher second, I too enjoyed every issue of QReview.

Bruce and I are friends and never looked at our publications as being in competition, rather that we presented to our respective readers the QL and its compatibles from different points of view. IQLR will endeavour to maintain this diversity by the inclusion of some of QReview's Columns, articles by Bruce and articles by those of you who wrote for QReview (hopefully you'll grace our pages with your thoughts).

We do hope you enjoy this issue of IQLR as it is a true representation of our publication. But as in all things business must raise its head. Many of your subscriptions to QReview and/or IQLR expire with this issue, to that end, you will find a subscription form with this issue, we do hope you will decide to stay with us during this exciting period in the QL's life.

As most of you are aware, Bruce has launched his new publishing company QUO VADIS DESIGN and we all wish him much success. You can find what's new in software or possibly that older program you've been looking for in Bruce's adverts right here in IQLR or better yet, visit him at the next QL Workshop or Show.



Remember.... Support Those Who Support You

SMSQ/E - Hints and Tips

Le Grand Pressigny, FRANCE - Tony Tebby
Duisburg, GERMANY - Jochen Merz

We recently discovered a number of problem solutions to various problems which arose when faulty programs were used in conjunction with SMSQ/E. These problems are not faults of SMSQ/E but become visible under it.

The first problem deals with BlackKnight running under SMSQ/E on the QXL (and ATARI TT). In fact, it is the "not-running"on the QXL. It is not even the fault of the author of BlackKnight but is a fault in the cache handling of the C-compiler which was used to compile SMSQ.

The following solution might be of help getting other non-working C-compiled programs to run. SMSQ/E has a system variable which allows programs to check on which processor type they are running. It contains 0 for 68000, $30 for 68030 and $40 for 68040. On all other systems, this system variable is 0 (i.e. no cache handling required). This was even true for SMSQ's which were shipped with the QXL until recently. Programs running on SMSQ were always thinking they are running on the 68000 and therefore did not enter the (faulty) cache handling routines for the 68040 in the C-program and worked! For the 68030, the branch was (fortunately) wrong, therefore the (faulty) 68030 cache handling code was never entered. So, to get BlackKnight and maybe some other C-programs working, just set the system variable to 0 before starting the program. This is done by entering the following line:

```
POKE !!$A1,0
```

The more experienced programmer can, patch the C programs directly to ignore any cache handling code. The first instructions are:

```
MOVEQ £0, D0
TRAP #1
CMPI.B #$30, $A1 (A0)
BLS.S xxxx
```

Just replace the BLS.S by a BRA.S and the problems are gone. For BlackKnight, you have to patch all three executable programs. It is quite possible that the problems mentioned above have been eliminated with more recent versions of the C-compiler.

A user had serious problems in that his disk drives would not work with SMSQ/E loaded on any of his QLs/Gold Cards and Super Gold Cards and various disk drives. He couldn't load or even view his BOOT program.

As there are a great many users running SMSQ/E on Gold Cards/Super Gold Cards happily, without any problems (except for some ED drives which are known to have problems - which might have been fixed by the time you read this) there was NO visible solution.

A close look at his set-ups revealed the difference: he had an add-on EPROM filled with various toolkits. The bad news was that all his machines had "Toolkit III" from Ultrasoft (please don't confuse this with Toolkit 2 from QJUMP, which works perfectly) built in. This Toolkit III "patches" the floopy disk driver so badly that it does not work anymore. It is quite possible other users might have this or other extensions somewhere in an add-on-EPROM space and have not had this problem with earlier versions of SMSQ/E, as these did not check all the EPROM space. The current version however, checks and links in all EPROMs found.

There are two ways to get around this problem: first, don't plug in EPROMs that patch around in the system or second, SMSQ/Ewill be able to optionally ignore the EPROM detection. This will then ignore ALL add-on EPROMs. The first solution for the "bad" EPROMs is probably the more sensible solution.

Finally, SMSQ/E V2.57 will be available soon! Apart from fixing various small problems and some minor improvements, we hope to allow QLIB Externals to be used. This can only be achieved by providing patch programs for QLIB_RUN, QLIB_OBJ and the External_OBJ files generated, again, problems not of SMSQ/E's making.

Professional & Graphical Software

LINEdesign

With LINEdesign, you can create artistic drawings, technical drawings, process bitmaps (even scale and rotate them!), and any kind of vector drawings. You can draw lines, curves, circles, ellipses, pies, squares, rectangles, rectangles with rounded corners, and any combination of these to create the most fabulous drawings ever seen. Because LINEdesign is a vector drawing program, any part of the picture can be moved, scaled, rotated, slanted without any loss of precision or resolution. In LINEdesign, pictures are device independant, meaning that the printout will be the same on any printer (e.g. same size and position).
Also LINEdesign is good at handling text. You can easily put titles and full paragraphs on the page. You can choose from a large variety of fonts (you get 130 with the program), and they can be displayed at any size, rotation, etc. If the fonts which are given with the program are not enough for you, there is a special program to convert Adobe Type 1 fonts for use by LINEdesign (pfb2pff).
LINEdesign is a drawing program, but it can also be used by people who are not good at drawing. LINEdesign is a great program for making leaflets, posters, and any kind of printed work. To add a graphical touch, you get about 150 clipart pictures, including banners, borders and general purpose drawings. LINEdesign will reproduce everything at the highest possible quality !
LINEdesign is delivered with an extensive manual, which includes a full printout of all the fonts and the clipart given with the program.

PROforma

PROforma is a vector graphics library. It is very powerful, and can be used for any application which needs high quality output. PROforma is used by LINEdesign, PFdata and PFlist to produce the output. PROforma supports black and white vector graphics and includes :
* clipping paths
* transformation matrixes
* grayshades, (thick) lines and bezier curves
* filling using even odd and winding rule
* vector (outline) fonts, which can be used in any size. Hinting is used to make sure small fonts look good.
* true WYSIWIG. PROforma can generate output for screen and printer, and the output will be exactly the same on both (with any difference due to difference in resolution).
* bitmaps. Although PROforma is a vector graphics library, you can include classic bitmaps so you can still use your old graphics.

PROforma (API) package is supplied with a comprehensive manual and examples.

pfb2pff This program allows you to convert Adobe Type 1 pfb fonts for use by PROforma.

DATAdesign

Never before has it been so easy to create, fill in and maintain your personal databases. To start a new file, just type the names of the fields. To add or delete a field, no problem, just do it. To change the name of a field, just indicate it.
What's more you can choose to look at only those fields you want, and in any order you specify. And you can select which records you want to view, and which not.
DATAdesign allows you to have some hidden comments for each record, have a general look at the file (in tabulated form) or to transfer a record into the scrap or hotkey buffer, so you can easily import a record in your favorite word processor or editor !
Security is a strong point for DATAdesign. Usually files will be memory based, for maximum speed. Files can also be disk based, making sure all changes are immediatly stored on disk, so even in the event of a power failure, you can at most lose the changes to one record !
Naturally, DATAdesign is good at sorting and searching. And if you were using another database, you can convert Archive or Flashback files to DATAdesign.

DATAdesign API

Using the API, programmers can unleash the real power of the DATAdesign engine, getting a relational database with a bonus, you don't even need a key field. The API gives you a unique and powerful record at a time data manipulation extension to the language you already use.

PFdata

Interesting program for all DATAdesign owners, to create hardcopy of your DATAdesign files using PROforma. You can use a large selection of fonts, in any requested size. Also LINEdesign pictures can be included to add logo's, boxes, etc. Several records can be printed on each page,...

PFlist

Easy to use program to create listings on any printer (especially inkjet and laser). Can include a footer with filename and filedate, always allows perforation of your pages. The font and fontsize can be chosen (PFlist uses PROforma). PFlist can create your listings in two columns, and in landscape (or both).

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PFlist	1000 (930)	PROforma api	5000 (4350)
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QXL IN COMMAND

Bedford, Massachesetts - Plyesville, Maryland, USA
Al Boehm *Tom Robbins*

MIRACLE QXL SYSTEMS

QXL Logo

There is a new QXL logo printed on a small plastic square that can be pasted on your computer so that everyone will know that it is running the QXL and not the you know what. Bob Dyl, us, and others decided to use "QXL IN CHARGE" with some stylized lightning. Thus, the logo won't be mixed up with this series of articles. We understand that the new logo sticker might be supplied by Miracle Systems with the next upgrade of SMSQ.

TAPE BACKUP OF THE QXL WIN HARD DISK

Recently I (Tom) inadvertently (read stupidly) reformatted my entire hard disk and had to reload all software and what few data files I had backed up from floppy disks. I lost quite a bit of stuff and promptly got an inexpensive tape drive. As my primary concern is backing up the QXL files, and not the DOS files, I tried the following and find that it works well.

Tape back up of Win1_ (on drive c:), Win2_ (on drive d:) etc... is easily done on a QXL. The QXL harddisk area is seen by DOS as a file named QXL.WIN this file can be backed up to a tape drive and restored to a hard drive using standard DOS tape drives and tape backup software.

I assume the the QXL.WIN file can also be backed up to floppy disks using the DOS backup command, but I have not tried this.

CD ROM DRIVE FOR THE QXL ? The PC which serves as a platform for my QXL is equipped with a CD ROM drive. My primary use for this drive is for playing a music CD while working with the QL. This drive is "Drive F:" on my system (a single hard drive partitioned into C, D, and a compressed drive E, with an additional OS/2 partition not visible to DOS). If I am running the QL and request a directory of Win4_ (which is DOS drive F:, the CD ROM on my system) I observe the following:

If there is a DOS CD in the drive, the drive light goes on and an attempt is made to access it. As there is no "QXL.WIN" file, the directory stats of the 'data_use' QXL directory is displayed. However, the point is that the drive is queried even if it is not readable yet.

SBASIC

The command SBASIC starts a new SBASIC job. Each new daughter SBASIC can load and run a SBasic program or even start it with EX. Compiled programs can be executed (for example Exchange) from it. In short it acts pretty much like a whole new computer. The really useful property for me is that when I am doing fancy programming and trying out new functions and so on, I tend to hang up the computer a lot. A reset destroys my ramdisk files and any other programs - I like to keep a running account in Quill of variable names and usage etc.

So now I do my development in a separate SBASIC job. If it locks up, I CTRL C back to the main SBASIC, start a new SBASIC job and try again. It is possible to lock up the whole computer, but this, for me, is very rare. If you do a lot of programming, using these separate SBASIC jobs dramatically increases your chances of going to heaven - less cursing!

BAD HARDDISK FILES

I (Al) like Tom recently had a bad experience with the files on the hard disk. For reasons unknown, Windows started writing in the middle of files including the QXL.WIN. Fortunately everything was backed up and I did learn a useful tidbit of knowledge in the process. Before I had found out about the overwrites, I had found that one of my QXL programs wouldn't run. I did a directory on the files and they were all there. However, when I tried to VIEW each file, some of them had errors. Good thing to check first if things aren't working.

Security on the QL

Portslade, Sussex, ENGLAND - Roy Wood

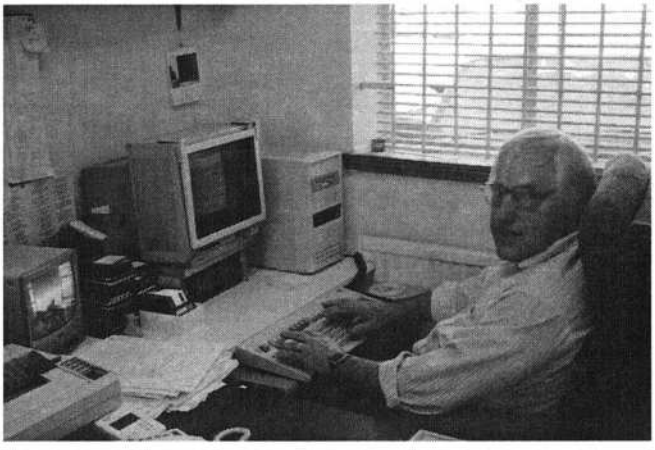
QL's Working at - WAKEFIELD SECURITY SYSTEMS Ltd

It is 3.30pm on a blazing hot day in early May and I am driving along the Sussex coastline to interview John Wakefield of Wakefield Security Systems Limited. I came in contact with John through a letter I had published in the February '95 Quanta magazine. I had just moved from Hamburg, in Germany, to Portslade, in Sussex, England, and I wanted to know if there were any local QL enthusiasts or a users group in the area. John was one of the people who contacted me and I went down to visit him in his office.

I was totally unprepared for a man who, not only ran his whole business from three QLs, but wrote all of the software himself. I decided that other users might enjoy finding out more about this and so I arranged this interview - although with the temperature in the eighties (pretty unusual for Britain) I was feeling slightly more like holding it on the nearby beach than his office.

"The man who thwarted the dongle"

John bought his first QL when they first came out and , had he been a bit less lucky, could easily have wound up with one of those infamous 'dongles' hanging from his Eprom socket. Fortunately for him the Sinclair lack of togetherness worked in his favour and he managed to avoid it. " I ordered one when they were first advertised," he said, " but weeks and weeks went by and nothing happened so I phoned them up and said 'Oi, whats happening with my QL?'. They replied that the delay was because I had ordered it by credit card and if I had paid for it by cheque I would have got it quicker. I cancelled the credit card order and sent them a cheque and, of course, got put to the back of the queue again. By the time I got it they had fixed the problem so I thwarted the dongle. I never even heard about it until I read about the problems that other people had".



(John Wakefield)

He bought his QL purely for the programming aspect having started computing on an Apple 2. "I needed something to work on at home and when I saw this fantastic new computer being advertised I thought, 'Ah,that sounds like what I am after.', so I bought it, along with the black Cub monitor that we still use in the office and a Cannon printer." He started to learn how to program purely through the QL Manual ('in which there were many mistakes')and the magazines, first 'QL USER' and then 'QL World'. "I still have every issue still." he said. He now subscribes to IQLR and QReview and has been a Quanta member for some years.

Programming for the QL Office - "I then decided that I was going to conribute to the QL scene and the first program I produced for public use was called 'QWhist'. This was published as program of the month in 'QL World'. "It was never commercially published but I used to get royalties of about a penny a week or something and I thought 'Oh this is good' and I wrote some more for other card games".

He started his security service at the end of 1988 and began using 'TurboQuill' on his QL to write letters but soon found the need to produce invoices and do other office work and that started him on the road to producing the suite of programs that now run his office. There are seven main programs that service all his needs in this respect and they all access the same data files for their basic information.

Security on the QL - (cont'd)

He runs three QL systems in his offices and all three are networked together so that he can draw data from any of the other machines and download programs to them. The first sits on his desk and consists of:

JS QL - Super Gold Card
Qubide - 120 Meg hard disk
single 3.5"HD drive
Falkenberg Keyboard Interface
SERmouse

This has been put into a Mini tower case by Ron Dunnett of Qubbesoft and drives one of Bill Richardson's Phillips RGB monitors and a citizen Swift 9 colour printer. this is the main machine on which he writes most of the programmes. These are written in Superbasic using the editor provided with the Super Gold Card and then compiled using Turbocharge.

The second system is in the next room and is comprised of:

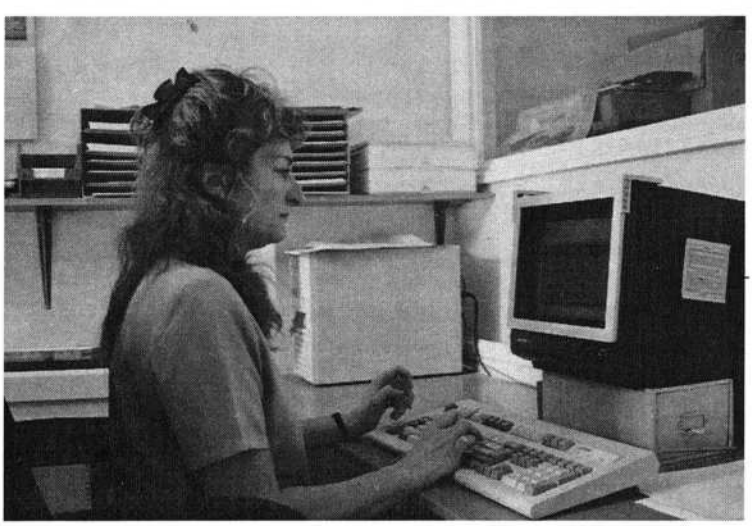
JS QL - Gold Card
Falkenberg Hard disk Interface - 80 Meg Hard disk.
Falkenberg Keyboard Interface
Single 3.5" DD disk drive

This was built into a Mini tower case by Felix Fonteyn for Bill Richardson and drives his original Cub Colour monitor and a Citizen Swift 200 Colour printer. This machine handles a lot of the invoicing, word processing and general office work and is used by his secretary Valerie Hobbs.

The third machine is situated at the front desk and is used by his receptionist, Hannah Jones. This consists of:

JS QL - Gold Card
Miracle Hard disk interface
Falkenberg Keyboard interface
Quimi mouse
HP Deskjet printer
Taitung colour monitor

There is also a forth machine lurking at his house which has another Gold Card, 3.5" HD disk drive and a Sandy Keyboard.

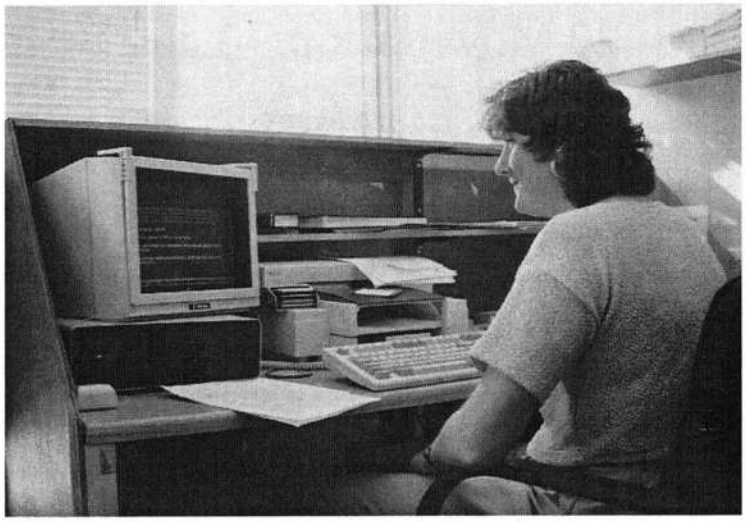


(Valerie Hobbs working with the 2nd QL system)

Invoicing, System Maintainance, Customer database, and monthly statements are all handled from John's programmes and he has constructed an interlocking suite which allows easy access to any part of the process. Looking through the files on his hard disk you can see that these programs are in a constant state of revision as new uses or situations demand. From this suite of programs quite complex activities can become quite simple. One program, for instance, will deliver a monthly list of outstanding accounts whilst another will alert John that a particular system is due for an

Security on the QL - (cont'd)

overhaul and print out the list of equipment for the service engineer to take with him to do that. Another part of the system will keep a separate file of false alarms that the burglar systems react to (this is a requirement of British law). He has even written his own mini word processor to add text to his invoices. This whole suite started off as one program but , as it grew, he found that he had to split it up because it became so hard to edit. John is considering making a more general version of this program suite and publishing it commercially but that may take some time to do. When it happens we will let you know.



(Hannah Jones working with the 3rd QL system)

On the commercial side of things John uses QPAC2, SERmouse, The Editor and Perfection. he has just purchased LINEdesign and SMSQ/E and is about to buy Jochen Merz's Qmenu so that he can use pointer driven menus in his programs.

The Likes and Dislikes of a Long Time User

"The thing that I liked most about the QL is it's ease of programming. I have looked at PCs and tried programming on them but I hate them, they're so unfriendly." He started off compiling his programs with Supercharge but moved on to Turbo because it was so much quicker. Now that he has SMSQ/E however he is having to look at the situation afresh. SMSQ/E does not seem to like some Turbo compiled programs very much, although quite a lot of them will run quite happily under it. "I am very happy about the editing facilities in SMSQ/E", he said, " because it tells you about your mistakes and points them out much better than the original Gold Card editor but its big drawback is the problem with the Miracle Centronics Interfaces. Two of the office machines have them and I cannot run SMSQ/E on these machines because the printout is so erratic. However, I know I'm going to like it when I really get to grips with it because it has so many facilities that I can use."

His dislikes are surprisingly few. "Microdrives were my first hate, of course, but swapping to disks was almost as painful because the early disk drives that I had did not work properly. The Miracle Hard disk was the first ray of light. Saving things had always been a nuisance until I got that but then I had a new problem because there was so much capacity available to me that I did not back it up enough. I get so engrossed in the things that I am working on that I forget that simple fact and that has caused me a lot of aggravation over the years."

"The main thing that has made me stay with the QL for all this time, apart for the brilliance of it's operating system, is the community spirit that most users seem to have and the way that they all seem to share information. You talk to someone who uses a QL and a whole wealth of knowledge comes out - not necessarily the things you wanted to know but...."

Which Way Forward?

"What I would like to see is a proper QL in a proper case. I mean we are all doing it, building them into these towers and cases and adding hard disks and interfaces but I would really like to see the main players get together to produce one. I bought a Thor a while ago but that was a bit of a flop - I've still got stashed away in a cupboard somewhere. I would like to see what Zeljko Nastasic comes up with but I would ideally like to see Stuart Honeyball and Tony Tebby get together and make a new machine and not call it a QL or a Super QL or whatever. Call it something different - like a "HoneyBee" - that would be nice."

Now that could create a real buzz !

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The QL and BCPL

Eindhoven, THE NETHERLANDS - H. P. Huyg

A development environment on the QL, an evolution.

1. History - Some nine years ago, I bought my QL, for one-sixth of the original price. I found the name: Quantum Leap hardwarewise not appropriate, but from the software point of view the QL was, and is a revelation. After playing a bit with TURBO and TASKMASTER, both not very exciting for different reasons, I bought two Metacomco packages: BCPL & Assembler, both contained an editor as well. This was the real start. I should mention that since 1961 I have been busy with computers and programming, but of course this meant producing things for other people, finally I had some equipment of my own and could follow my own ideas. Unfortunately those ideas change with the weather, so today I am not much further than in 1986, but that is another issue. Why I bought the Assembler, I don't remember, I have used it very infrequently. BCPL, however, is my pet-language, possibly I am currently the only QL-owner working with it. A brief explanation of BCPL is given in a further section.

In late 87 I got the next Quantum Leap: the Trump Card and its software (TK2). This allowed me to make a Setup which I still use: load everything I need for a session in memory (ram1_, .. ,ram3_), work or play, and at the end copy back to the external medium (Microdrive in those days) the things which really needed keeping. This way wear and tear was kept to a minimum, and in case there was an accident (very rare), nothing was lost, except my nerves. The command: **'FORMAT RAM1_MDV1'** was really a gem.

I think I worked over five years like that with the system. During that period the 'kit' was slowly developed, using Superbasic as JCL (Job Control Language), see later. When the Goldcard became available and was subsequentially reduced in price, I bought one, what a luxury! Inevitably followed the next Quantum Leap (after a few months), the Extended Disc drive, now all I needed was On-line! However, the aforementioned principle, namely working only in memory, was still kept. Fairly recently I put together from two wrecks one half working PC-AT, that is to say, most of it functions, except the Floppy Disc drives and the clock seems to run at 150%! So if I need to load some PC-software I use the QL for it! The last Quantum Leap (so far) is, unfortunately at the high price, the QXL with SBASIC, really a marvel. Softwarewise I upgraded the rather elementary editor from Metacomco to the excellent Master-SPY, maybe I was the last customer, because the developers moved to AMIGA! The other big help has been, and still is, QRAM. Further Discover has been useful. I bought lots of other software, but generally they were a disappointment, e.g. an 'intelligent' disassembler, which I thought in my innocence would recognise the QDOS traps, system addresses, .. but didn't.

2. Hardware

2.1 QL with: 2MB Goldcard
Schoen keyboard (see later)
Hermes serial interface, it really works!
ED disc drive with 2 units

2.2 PC-AT with: 4MB QXL
VGA screen
20 MB hard disc

2.3 Other: Printer Epson Stylus 800+ and a cable to connect QL-QXL

3. Logical organization - There is a Software Library wich consists of two parts:

- the Program Library, i.e. all the programs like QUILL, BCPL, QRAM,... to start up the development kit, this is on one floppy, and always protected.

- the Development Library which contains everything I wrote to make programs, e.g. module sources, module objects, make file, definition files, data files, but NOT the executable programs (they are not stored at all). All this is on another ED floppy (getting quite full now), not protected.

There are back-ups of these floppies (update done depending on usage), they are kept at the bank in a safe.
When the system (QL or QXL or both) is set up then there are standard four RAM-units in each subsystem:

- ram1_ : for the tools (compiler, linker, Quill, ...)
- ram2_ : for the sources, objects, ... which I need for the session
- ram3_ : for the executable programs, built from ram2_
- ram4_ : as a general workarea.

With all the standard junk loaded I have left on the QL about half and on the QXL about two megabytes to play. If I do nothing the screen shows nothing, if I touch a key I get the following screen (see fig 1), they are not identical on QXL and QL, but quite similar. The program controlling all this is the resident Superbasic/SBASIC JCL. Before I continue with the way of working, first the ins and outs of BCPL.

```
        ---  D E V E L O P M E N T  K I T  ---  Program = snake
                                              ---  Module  = utilcon
Enter "B" - Back-up RAM
      "C" - Compile
      "E" - Edit
      "F" - Finish
      "H" - Help on ALT keys
      "L" - Link
      "M" - Module name
      "N" - Network check
      "P" - Program name
      "R" - Re-initialize printer
      "T" - Text processing
      "X" - eXecute program, copy file, etc
```

(figure 1)

4. BCPL - Basic CPL (Combined Programming Language) has nothing to do with BASIC but is the main predecessor of the C-language. A program consists of procedures and functions, the latter return a value, the former only 'do' something and return. They are qua execution connected in a hierarchical fashion: there is one starting procedure, and this one can 'call' other procedures/functions, etc (or indeed itself), so in the end the execution comes (hopefully) back to the starting procedure to finish and that is it.

A characteristic of each function/procedure is that everything used by it must have been declared within, supplied from an 'upper' one, or known otherwise to it. One could say that each such procedure is a program by itself. A module (or section) is just a collection of procedures/functions where each one can 'call' any other which has been declared or written out before the concerned one. A program is just a collection of one or more modules. Any procedure or function which is to be 'called' by another one in a different module must have its name associated with a 'global' location, valid for the entire program. Please note that a module does not necessarily have to be created by BCPL: provided that the module structure is correct, it could have been created by an assembler. In fact, the standard overhead of a BCPL program, about 9K, is mostly just another collection of standard functions and procedures.

What makes BCPL so different, even from C?

There is one data-'type' and that is a 'cell' and on the QL a cell is a longword of 32-bits (thank heavens, on the PC it is only 16-bit and so quite useless). Whether a cell is a number, a pointer, a character or a boolean variable is just up to the program. For my purposes this is just great, but it is also extremely dangerous, in short, one may not make any mistake (to err is human). A Linker will glue the different modules together to create an executable program, this is a very, very fast process, even for gi-normous programs. I had to rewrite the linker, because it got into problems for programs greater than 64K!

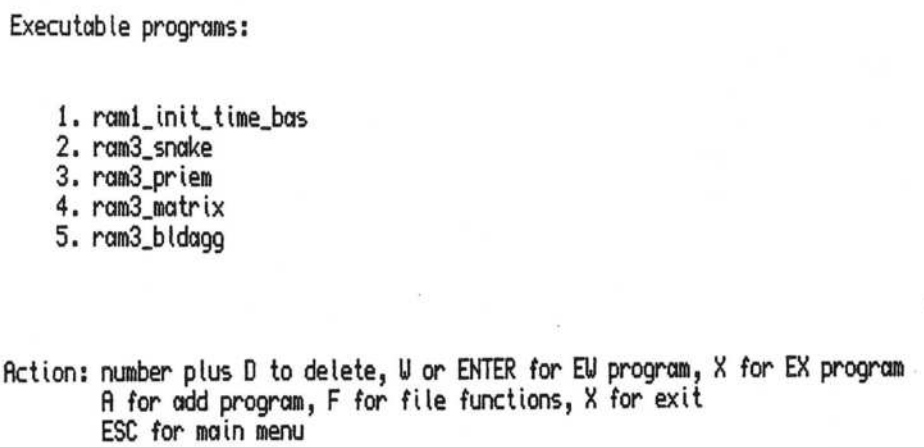
For further information about BCPL: BCPL, the language and its compiler, Martin Richards & Colin Whitby-Strevens Cambridge University Press 0-521-28681-6

5. Program Development - In my environment a program consists of:

a) the used global procedure/function list
b) all the definitions which are used throughout
c) the source of each module
d) the object of each module (i.e. the result of compiled source)
e) the 'make'-file, which is mainly a list of all components of a program
f) the executable program
g) possibly some data-file(s) needed by the program

When I want to fiddle with a program I type P(rogram) in the menu plus the name of the animal e.g. 'snake' and as a result all the files mentioned in a), b), d), e) and g) are loaded in ram2_.
If I just want to execute it then I have to link the modules by pressing L(ink), by means of e) it will find all d)'s and create f) in ram3_.

An executable program has a name (obviously), it gets assigned a number after the linking process, and by supplying that number in the Execution menu it gets activated, c'est simple comme bonjour! (see fig 2)
It must be noted that in the Development Library the directory structure is by nature of file, so the files a) ... e), g) are in different directories: 'sce_', 'obj_', 'mke_', etc.



(figure 2)

If I want to build or modify a specific module, I type M(odule) and its name and the concerned source will be loaded in ram2_ for subsequent E(diting) or C(ompilation). The compiler JCL will determine whether a module has to be compiled (BCPL) or assembled (ASM). Before a module source is edited or compiled, the original copy (if any) is duplicated to a workfile on ram4_, after editing/compilation the concerned source/object is compared with the workfile and if different, the culprit is added to the list of potential files which might have to be written back to the library. B(ack up) will initiate such an action. It is clear that there is a main flaw: if I switch off the system or in testing the system hangs up, I have lost all changes since the last B(ack up) operation. Sometimes this happens, I get very angry at myself, cannot blame anybody else, and start again. However as I now have two systems (QL & QXL) I use one for development and the other for testing and as the frequency of power-cuts is about one in four years in our country, it is only my own stupidity I have to fear.

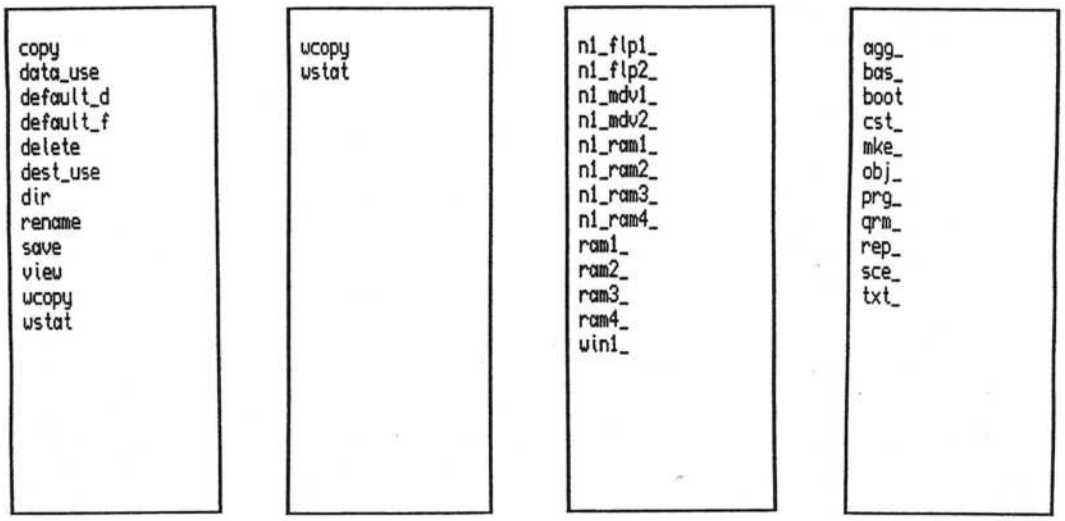
6. QXL speed - The QXL is tremendously fast and SBASIC helps a lot. Two programs, one to set the time and the other to set the printer have been 'converted' from Turbo to SBASIC, without a single change and can be executed like normal programs, that is, through EX. I am now on my fourth printer and each time I had to update this program I had to find out again how Turbo functioned, now it just another Basic program which can be updated and tested whilst my JCL is still alive!

Now this speed has to be (mis)used and so the following gadget/tool was added to the JCL. First I should say that I am a very slow typist and I don't like to type a lot. Also there is a thing with the standard commands I am very annoyed with. When I want to copy a file then the date/time of the destination becomes the current day/time

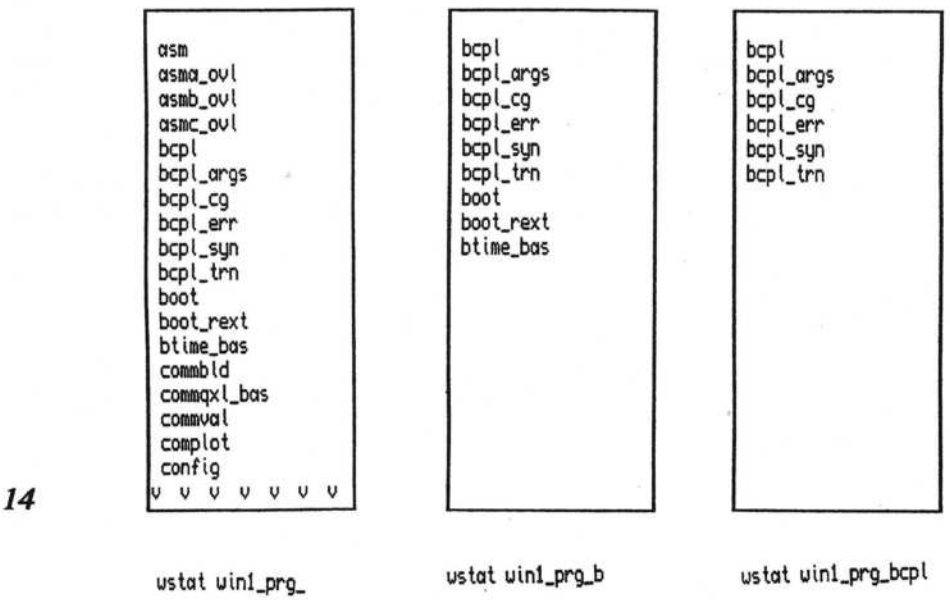
rather than the equivalent of the source. There is a TK2-command to update a date in a file (FUPDT), but it never worked on my Goldcard. Amazingly after removing the old QRAM components & all the TURBO additions, that command (and others) works! (don't ask me which one was the killer!) Now I had to build a controlled (W)COPY environment which would be attractive (see fig 3 & fig 4). This is the F(unction) button in the extra-menu. A list of allowable commands appears on the right of the screen.

My principle of typing is to type only as much as is necessary to discriminate the wanted function from the other ones, e.g. if I want to do a 'copy' I type 'c' as this completely determines the function, if I want to do 'wstat' then I have to type 'ws'. Any common characters will be generated by the JCL, e.g. if I type 'def' then this will be expanded automatically to 'default_'. Why not a discriminating single (CAPITAL) letter as in so many other environments (like my main menu)? Because this is aesthetically unclean, and more importantly, I use the very same mechanism for files/directories and these are variables rather than constants. On the right of the screen all the valid possibilities are given in alphabetical sequence. That is where the speed comes in: despite the fact that a hybrid interpreter/compiled BASIC is used, the result comes in a flash and the letters I have to type are really very few. Effectively for: 'wstat win1_prg_bcpl' I just type 'wswpbc' in fig 3 & fig 4 are shown the displays on the right side of the screen after each character has been entered.

Disadvantage: each time a new file is added to a directory there is the possibility that the letters to type change. Anyway, the result is that I type many fewer letters, get correct results, and I make sure that for (W)COPY from & to directory files the date/time is set to the source. Big fun! Yes, if I make a mistake I can go back character by character. No, I don't need a mouse for this.



(figure 3)



(figure 4)

7. QL vs. QXL - Maybe one would expect here a performance comparison. No, there are two silly things I just want to mention and about which I can't do anything.

7.1 Noise - After the QL has been switched on, the only sound could come from the floppy-units and the keyboard, both are acceptable to me, even the floppies are only used when starting and finishing, so it is vey quiet. The QXL however is housed in a PC and that thing is humming continuously when switched on, even when I do nothing with it. In an office environment one doesn't hear this because of the background noise, but at home in the evening this is the only noise, spoiling music from the radio/CD and peace, it upsets me.

7.2 Keyboard - On the QL and PC the function-keys are frequently used. Now on the PC, for some mysterious reason these keys have ended up above the top row, meaning that ergonomically they are at the worst location: one has to move a whole arm, rather than just the fingers, just to press a function key. The amazing thing is that on the original PC the function keys were where they are on the QL!

Historically I believe that it all started with NCR who built in the late sixties a screen with next to it at each side a series of buttons, so that they could be used with the text on the screen (one can still recognize this in the machines through which one can obtain money). Now Hewlett Packard had in the early eighties a famous terminal where the buttons were the top row of the keyboard, just under the screen, and many applications used these to guide operators in their actions with little blocks of text at the bottom of the screen (changing them rapidly when going through the 'menu'). I suspect that IBM moved the function-keys to their awkward position to have them used in a similar way as HP. The difference was that with HP the screen and keyboard were one logical unit, with the PC they are different animals, and anyway keyboards are now very often detached, but we still live with the results. C'est la vie!

8. Some silly programs - There are two programs, one totally useless, the other might have some appeal, I want to describe a bit:

- to set the date and time,
- to print text files.

8.1 INIT_TIME_BAS. - This is a very old program, from the days that the QL had no clock. The reader can understand from this article why I still need it sometimes!

What is so special about this S(uper)BASIC program? Nothing, one just enters the date and time and this will be set in the computer. Oh yes, it will ask for your confirmation whether it is the correct date and time before doing so. Why is it silly? Because it is a big program to do a simple thing. The user can enter the date and the time the way (s)he likes it:

- 21-5-95
- MAY21st,95
- 5/21/95
- May 21, 1995
- 21V95
- Today it is May twentyone, 1995. Are all recognized.

Similarly for the time:

- it is 20 past three in the afternoon
- 15H20
- 3.20 pm
- 1520

Any potential ambiguity will be recognized and the program asks which one you mean: 4/5/95 will ask 'is date: Thursday, 4 May 1995?' and if not the alternative.

8.2 PRINT - This is a very small but not simple program which prints text files, mainly, but not necessarily only, source programs. It is activated by the 'ALT p' key and before control is passed to it, and after the filename

has been supplied, the filename, size and creation date can be printed at the top of the first page. Then it will print the contents whereby a paragraph always either fits on the page or starts at a new page. A paragraph is a collection of lines without empty lines. In a BASIC program 'END DEFine' serves as the end of a paragraph, and in printing it will be followed by an empty line! The second and following pages can be decorated with a pagenumber. The program to setup the printer creates on RAM a little file with a few settings like: number of lines on a page, number characters on a line, ..., and if that file is present PRINT will use that information to fill the pages properly, otherwise 'standard' parameters are used. With the printer I have nowadays, the source listings are mostly 15 cpi and 8 lpi on A4 sheets, saving a lot of paper. It is true that I lose paper because a paragraph doesn't fit at the bottom, but I hate to look across pages in individual procedures. If I would have created this article with my favourite editor I could have printed it with this program.

To avoid any possible dissociation between a paragraph header line and the remainder of the paragraph I would add some spaces on the empty line, it is then no longer empty! The result would be very presentable, but different, on 11", 12" and A4 paper at 6 or 8 lpi without touching the file!

9. Epilogue - Both the hardware and the development kit have grown in time. I believe it would have been impossible to build it in one go. The fact that the whole thing is based on a design of over 12 years ago and that it is still operational and doing useful things(?) is worth a compliment to the QL's originators. I would like to thank the people who kept the QL alive, after its demise, both hardwarewise and publishingwise. In a future article I shall try to describe what to expect, in fact my ideas about the 'WHAT' are quite crystallized, but the 'HOW' is still foggy.

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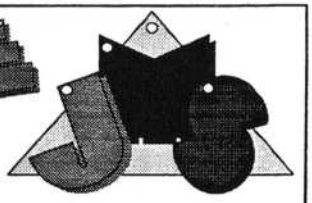

News - not very many at the moment, but in the last two months more time was spent for going to meetings combined with all the preparations before and after, dealing with enquiries etc. than for programming. If it was difficult to get hold of me in June, don't worry. It is very unlikely that I will be travelling in July and August (except for the QL show in London, beginning of July) and then there's also plenty of time left for programming. New things are on their ways. At the time you read this, it is quite possible that the mailbox number has changed. So, if you don't get any connection at 0203-591706, then please call 0203-501274 (but not with the modem!) and ask for the new number. The date is not fixed yet, but in July or August, the telephone numbers will change! 501274 will stay active for a bit longer, so that you can contact me under the number you know! The new numbers will be published as soon as possible.

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EXTENDED4-QL-Emulator for ATARI 260ST, 520ST/STF/STFM, 1040ST, Mega ST (but not STE!!!)	DM 289,–
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CTRL ALT SHIFT TAB gives a quick reset - many customers demanded for it. QL EPROM banners are listed now. DEV can be renamed. And much more to come ...

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Installing a Hard Disk

Geneva, SWITZERLAND - Ian Pizer

Here is the saga of my recent activities in updating my QL to be really modern and have a HARD DISK! (An old QL with Super Gold Card, Hermes, Minerva, SMSQ/E, Sermouse). I write this because it shows how naîve one can be. Hard disk? Easy - buy one. Well, first buy a QUBIDE. Install it without a hard disk and naturally, on booting up, the screen tells you there is no hard disk. So I chose a HD from the list provided by QUBBESoft P/D (Ron Dunnett, a kind and helpful man) who sold me the QUBIDE QL AT/IDE Interface for the HD, and I installed it between the SGC and QL (Be careful in this activity not be bend one of the 40 pins of the QL expansion connector because it is the devil to straighten them!). Actually finding the HD was not easy as local shops wanted to sell faster better ones but I am conservative and preferred to go the recommended way. By chance I came across a clever container for the HD (SuperStor Pro) which will eventually fit in the mini-tower (see below) and which allows you to withdraw the HD and replace it quite easily should it become necessary or desirable (a backup?). The HD is now in a protected environment.

So I had a HD but where is the power supply? The shop says plug the HD into your PC. Embarrassment - it is not a PC it is a .... (he wouldn't understand). Bright Idea - ring Ron. He says - you need a PC power supply which comes in a PC Mini-Tower which you can buy anywhere. Back to the shop - Oh yes we do have that item. I had not realised that a mini-tower comes with many accessories you need to put a computer within. The power supply is like an octopus; there are 5 cables exiting with about 6 connectors of various sorts, one of which matches the HD for power. One cable is for a power switch which was supplied and fits in the front panel of the tower (connectors provided). You could remove the supply from the tower, but as I intend to put the QL within the tower, eventually, (when Ron has his kit available) I keep the nearly empty tower sitting beside the HD which sits on the twin floppy drive. You also need to buy a 40-way flat cable, a standard PC item to connect the HD to the QUBIDE.

So I power-up; some noise of PS fan and HD motor, (though a soft (no HD) QL is silent to me, younger people claim there is a high pitched sound, probably from the monitor). "Format win1_connor" takes quite a while during which time I try to understand "WIN_DRIVE", partition, cylinders, block size, etc. I planned to have win1_ for programs and win2_ for data. However I failed to find out how to partition, despite the text and program aids. There seems to be confusion (me or them?) about a DRIVE which is hardware and a DRIVE which is a partition. So I decide to load programs and data together in win1_ and use several sub-directories (e.g. "make_dir win1_T_" for Text87 text files).

Next action was to configure various programs so they understand the change from flp to win. That took me most of the afternoon and much brain work, but eventually they (programs) all understood. The biggest problem was BOOT. Having carefully changed all flp's to win's on the HD, the computer wanted to find BOOT in flp1_. For the time being I withdraw the boot disk from flp1_ before starting the computer, then it finds the correct boot on win1_. I have a feeling that SMSQ/E prefers to find files on flp's (or was it built into the QL by Clive?). So does it all work? Fast is hardly the word to use - Text87 loads in a flash, as does LineDesign and others. Many actions (like load, save) are almost instantaneous. And I have an enormous space available in the 425MB HD (257652K free).

Now about timing when booting up. It takes 17 seconds to do the initialising of the HD, another 13 if you do not press F2, then there is a longish pause (why?) before the files are loaded etc., the computer is ready to work in a total of 56 seconds. You gain 13 by pressing F2. The remainder of the time can probably be trimmed in later versions of the QUBIDE software or from wherever some of the unexplained delay comes from. However, it is well worth waiting 56 seconds and I have no regrets about having a Hard Disk.

About the noise (seems like I am in a plane) - I am almost used to it, but I found a way of temporarily stopping it. With the present arrangement the PC power supply feeds its own fan and the HD. If I switch off the power supply there is QL-quiet but QL continues to function; of course I must avoid any action which requires the HD to do something until I re-power the supply. Strange that the initiation process does not need to occur again. I suspect that experts will be horrified when they read this. When all is in the closed mini-tower the noise level will be quite bearable. I hope experts who read the above will comment so that the propagation of any bad advice in the above can be neutralised.

Quo Vadis DESIGN

Computer Consultancy/Services
Proprietor: Bruce Nicholls
57 Shaftesbury Road, Romford,
Essex, RM1 2QJ, UK.
Tel/Fax: (01708) 755759

QL SOFTWARE

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NEWS

We now stock the full range of software from **Albin Hessler Software** and **Ergon Development. Software87** software related to text87plus4 is also stocked.

***** Ergon Special Spring offer *****

Due to the low value of the Italian Lira Ergon are offering a special 10% discount on their programs (Orders deduct 10% from the above prices). This condition will last until the exchange rate increases, this offer could expire at anytime so please contact Quo Vadis Design before purchasing goods.

DiskMate 5 from **PM Data** in Norway is now available. DiskMate is a Pointer program to cover most needs concerning disk and file management.

Screen Snatcher has been upgraded to allow the whole screen in extended screen modes to be saved. The screen can now be saved in PIC format or multiple 512*256 normal QL screens.

The Cat, a utility for producing multi-column dir output, is now at version 3. A new addition is an executable (job) version which can sort the dir list alphabetically.

QL-PC Fileserver is now at version II. This has been extensively changed to allow full length QL filenames to be stored on the PC. Many more changes have been implemented including full System Amadeus compatibility. Existing owners need to contact DI-REN for upgrade deals.

TERMS/CONDITIONS

Software is supplied on 3.5 DD disks. For software available on microdrive see catalogue. All prices shown are in UK pounds Sterling. Software is sent post free in the UK, overseas add £1.00 per order. Please make payments payable to 'Quo Vadis Design'. Payment in UK pounds Sterling currency only, Cheques (drawn on a UK branch of a bank or building society), Postal Orders, International Postal Orders and Eurocheques are all accepted. Goods remain the property of Quo Vadis Design until full payment has been received. Call or write for a more comprehensive catalogue.

Keeping it All Up - Font (PROGS Fontpack)

By Roy Wood

Whether you buy this set of fonts from Progs will depend entirely on the use that you put your programs to. I have several Progs progams and lots of different uses for them and certainly for me this collection of new fonts adds a greater dimension and a classier look to the printouts from these but each user will have to decide if the result is worth the outlay. They are cerainly not cheap but that is more a result of having to pay royalties to the authors of the fonts than any 'get rich' attitude on the part of Progs themselves.

The Package:

The fonts themselves come on five 3.5"DD disks and they are accompanied by the usual Progs bound manual. The manual itself consists of 54 pages of which the last 50 are straight printouts of the fonts themselves and the first 4 are mostly acknowledgements of the copyrights and trademarks involved and, just by reading through these, you can see that Progs had to negotiate a minefield of companies in order to be able to distribute them.

There is for instance a font called, by Progs, 'Dutch 801' but known to most of us as 'Times Roman'(tm Linotype AG or it's subsiduaries) and another called 'Calligraphic 421' which is more commonly called 'Codex'(tm Linotype AG or it's subsiduaries).

Installation:

Installation is easy. All the user has to do is to call up the PFConfig program and hit the command 'Add a font' and one of Jochen Merz's menu extensions is loaded. Select the device that has your fonts on it and then choose the font you wish to add. Alternatively you can choose 'Add all fonts in a directory to the fontmap' which will present you with the same menu but allow you to add every font on the disk to the fontmap. Once this is done you can go on to the next disk and so on until you have installed all the fonts that you require. Pressing ESC or hitting the ESC sign at the top of the menu will then write the whole thing back to the storage device ready for use - simple eh why isn't everything like this?

The Fonts Themselves:

At first glance the fonts displayed in the manual are not so impressive but once you start to use them within the programs and see the printed results the improvements over the basic fonts becomes obvious. To begin with, all the fonts in the pack have a full character set and this means that you can use all the accented characters directly from the keyboard. In the fonts provided with Linedesign some of these are missing and some have to be called up by writing the character name inside backslashes. These fonts also include backslash called characters for hard to produce symbols such as fractions, greek letters etc. This also gives the user the ability to call up things like the 'ß' symbol regardless of the translation table or the keyboard on which he is typing by merely putting the word '/sterling/' into the text.

Most of the fonts on this pack are elegant and sophisticated but there are a few 'fun' items lurking within. 'Old Dreadful No7', which sounds more like the title of a Beatles song from the late sixties is one such set of characters. Each letter in this font is made in a totally different way and the end result is a bit messy but still readable and possessing a sense of humour. Thunderbird is the classic 'Wild West' style and Orbit-B has that sixties sci-fi feel to it.

Conclusions:

As I said at the start of this piece, the verdict on whether this pack is worth it's purchase price is totally dependant on how you use the LINEdesign / pfList / pfData program that you are going to buy it for. I am using both LINEdesign and pfData to produce newsletters and envelopes for the New Sussex QL User Group and specifications and documents for my job as a sound engineer and I have found some of these fonts to be a dramatic improvement over the originals. On the other hand there is a danger of filling your disks with hundreds of fonts and spending more time trying to decide which one to use than in designing the document. On the development table from Progs is a desktop publisher and I can see that when that is out this is going to be a very useful tool and that tips the balance in it's favour.

When I spoke with PROGS at the Eindhoven show and offered to do this review they said that they could not give this pack to me because they had to pay such a high royalty on it and my reply was that I would either return it to them or purchase it - well I bought it what else can I say?

Shelly Allegro

THUNDERBIRD

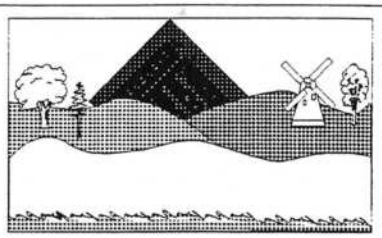
γ δ ζ θ ξ Δ Symbol Proportional

THIS ARTICLE:

I PRODUCED THIS ARTICLE ON:-

A JS QL, RUNNING SMSQ/E v2.52 WITH MINERVA 1.97, HERMES, SUPER GOLD CARD, TWIN HD DRIVES FALKENBERG KEYBOARD AND H.D. INTERFACES AND 20MEG HARD DISK. I WROTE IT IN TEXT87 AND THEN LOADED THE PUBLISHERS PACK DRIVER WHICH I HAD PREVIOUSLY CONFIGURED FOR THE NEW FONTPACK. THE BULK OF THE TEXT IS "GOUDY HANDTOOLED" WHILST THE HEADERS ARE "OLD DREADFUL NO.7". THIS SECTION IS COPPERPLATE GOTHIC. THE BOXED TYPEFACES ARE AS NAMED.

Engravers' Old English



New Sussex QL User Group

Ray Wood

The QUANTA AGM

Newport, Rhode Island, USA - Bob Dyl

Tea Time in England

For many years I've read the various printed reports, seen the many pictures of smiling QL users and wished I could have been there. This year was different, I'm in some of those reports and pictures. Thanks to the urging of Stuart Honeyball of Miracle Systems, Quanta's long-time treasurer John Taylor and many others, I decided to make the trip. Feeling like it was almost and in some instants a pilgrimage to the land that gave birth to our marvellous machines, there could not be a better meeting to attend than the Quanta AGM.

Saskia, Julia & Roy Wood

My fantastic hosts during the all-to-brief visit were Saskia, Julia and Roy Wood who took me into their home not as a visitor who spoke with a funny accent, but rather like a member of the family who had been away for some time.

They were also responsible (along with Phil Borman and Dave Woodman) for getting me addicted to English Tea. I'm now limited to one pint a day (yes, I said pint, that's the size of the cup I use) that's all my blood pressure will allow (really good stuff).

Besides getting the chance to see some of southern England (Brighton, it reminded me a lot of Newport) I was able to observe John Wakefield's QL run office first hand, please see the article "Security on the QL" towards the front of this issue.

Saturday 29th of April - After a very enjoyable three plus hour trip through the English countyside Roy Wood, Stephen Hall (the provider of the transport) and I arrived at the Clevedon Park Hotel. Once situated and after I had a cup of tea, we joined what seemed to be 30 to 40 QL enthusiasts at a dinner organized by Bill Newell at a local restaurant. Just about all the major traders, most of the Quanta committee, and many other QL notables were there (I avoid names here only so that no one is left out). After a good meal and a few pints (I drank Coca-Cola) and a great time, many of us retired to the lounge at the hotel, where a few pints continued to flow, as well as brisk QL conversation. At 3 AM in the morning I called it a night (the party was still in progress and in the able hands of Terry Harman and Dave Woodman).

Quanta Chairman - Roy Brereton

All joking about pints aside, one of the most rewarding and enjoyable functions at QL shows and meetings is the opportunity you have to fellowship with other QL'ers. I'm convinced that QL users are the same everywhere. The only thing that separates us is distance (not borders). We are truly International. Nowhere, will you find more helpful, more sharing, more hospitable, more friendly and yes, even more characters than in the QL community. Support Quanta, support your local user group and try to make as many QL workshops and shows as you can, you'll have a great time.

Sunday 30th of April - Was a beautiful day, bright sun and temperature that seemed like early summer

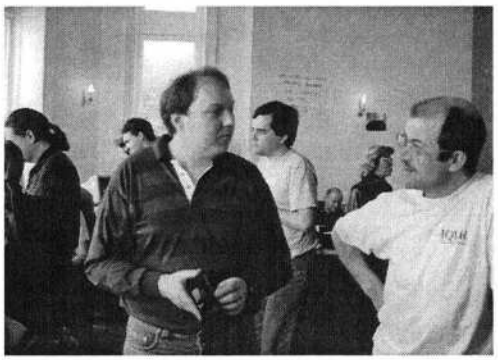
back home. By 8:30 AM most of the traders were setting up their tables including: Ron Dunnett of Qubbesoft, Dennis Briggs of Adman Services, Albin Hessler (Germany) of Albin Hessler Software, Bruce Nichols of Quo Vadis Design, Bill Richardson and Felix Fonteyn of W. N. Richardson & Co., Stuart Honeyball of Miracle Systems, Tony Firshman of TF Services, Jochen Merz and Bernd Reinhardt (Germany) of Jochen Merz Software, Robin Barker of DI-Ren and the Quanta Committee. At 9:30 AM every one seemed to be doing a lot of business.

Dave Woodman and Terry Harmon eyeing a mini-tower cased QL with Felix Fonteyn.

John Taylor discussing the merits of SMSQ/E with Jochen Merz.

The Bristol sub-group did a super job organizing and hosting the AGM. It's easy to see why they have hosted so many. In an adjoining room, they had a number of people (and computers) set up so that a visiting user who had a problem could get help. An easel was set up with particular problems and a number assigned to each one. All you had to do was look for the person wearing the number that covered your problem. Help was then just minutes away.

John Hall seated in the Help room with his hugh monitor. You didn't need glasses to see the screen clearly. (We are still trying to get a clear picture of John.)



Phil Borman (center) convincing Stephen Hall of his need to purchase a Qubide hard disk interface. (In the background you can see how busy the Help room was.)

QL'ers seemed to arrive in shifts, some came in the morning while others came in the afternoon, then there were those who were there all day. (A little different from North American shows where people come days before and stay days afterwards. But then again, we have only ONE show per year.)

QUANTA AGM - (cont'd)

Many of the Traders gave lectures during the day concerning their products and all of them were well attended. The Workshop (show) while usually covered in more detail, was not the only business of the day, this was after all the Quanta AGM (Annual General Meeting). The slate of officers and the committee were elected unopposed.

Albin Hessler and Phil Jones (beard)

The only changes were the retirement of Quanta's able Newsletter Editor, John Vanags, who served in this difficult post for three years with distinction. Committee member Phil Jones has now assumed the duties of Newsletter Editor. (Phil needs all our support, including articles.) John Southern was elected to the vacant slot on the committee and will be responsible for Quanta sales. (Committee members were all wearing the newly designed and very colorful Quanta Sweatshirts, call John for details.)

Other Quanta business included the Chairman's report, the Treasurer's report and the Auditor's report etc. Like the workshop the AGM was well attended. If you are at present, not a Quanta member, this may be the time to join.

Two old friends meet for the first time (Bob Dyl & Dilwyn Jones)

On a personal note, I would like to thank the Quanta Committee, the Bristol sub-group, Roy Wood and family and the many others who made my trip so memorable. My regret is that the weekend didn't last for a week.

I was quite surprised, in that I did not suffer from Jet-lag. The adrenalin was really flowing.

I must thank all those people who were kind enough to share their thoughts with me. A special thank you goes out to those who traveled a distance to come and meet me, Dennis Briggs and George Morris in particular. Again, regretting the fact, that time was so limited.

In answer to a few queries raised in the May issue of Quanta; yes, my right hand was quite sore from shaking so many hands. (I loved it, and its back to normal.) My voice did not fail me once (it must be from all the practice I get telephoning traders and authors).

IQLR gained ten new subscribers and some users saw IQLR for the very first time. As a bonus, I received promises for a great many articles (well I might have twisted a few arms). Of great value is the knowledge that we made a lot of new friends and finally got to meet a lot of old friends. All in all, it was a great time to be a QL enthusiast.

We hope many of you will consider crossing the great pond and visit with us next year at the 4th North American QL show. We'll try to duplicate your friendliness and hospitality. Start planning your holiday now!!

superHermes

A super upgrade for the Sinclair QL

Hermes co-processor solved the major problems of the QL co-processor. **superHermes** does all this and adds the following, all on a plug in circuit board not much larger than the original 8049:

- All Hermes features (working serial input/ existing QL keyboard improved and debounced/ key click/ independent ser1/2 input) plus full 19200 throughput on ser1/2 input not affected by sound.
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- Three SPARE input/output lines (TTL) with +5v/GND. One 5-way connector.
- Capslock/scroll lock LED connector.
- Turbo connector. IBM style panel/led can be controlled externally or by QL.
- Keylock connector - to lock IBM/QL keyboard & superHermes mouse.
- 1.5k user data storable in EEPROM (Electrically erasable non-volatile memory).
- Plug connectors on pcb for all relevant features.

All this is made possible by the high speed RISC co-processor (PIC17C42)

Fitting is a simple job - simply remove the top of the QL (8 screws) and replace the IC marked '8049' or Hermes next to microdrive 1. Can be fitted to bare boards and is especially suitable for QL boards in IBM PC style cases. QL control software is provided

Cost (including manual and 3.5" disk) ..... **£92(£87)[£90]**

capslock/scroll lock LED with plug ..... **£1.50 (£1)[1.50]**

Allowance for upgrade from Hermes (send IC only) ..... **£10 refund**

Complete 12" long cables (specify if panel mounting requd):	Open ended connectors (socket and 12" cable with bared tinned ends):
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Serial mouse (9D)....**£3.50 (£3)[£3.50]**	spare - please specify)..**£2 (£1.50)[£2]**

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Town Crier Announcements of Upcoming Events

To have your Show, Workshop or AGM listed by the Town Crier, send all relevant information to IQLR's North American address. Please note deadline dates for submissions listed on page two of this issue.

8 July 1995 ***(SATURDAY)***

TRADER'S FAIR & QUANTA WORKSHOP

Contact: Tony Firshman
Tel: 01344 890986
Fax: 01344 890987

St Helena's Church Hall
St Quintin Avenue
London W10
GREAT BRITAIN
Show Hours: 10:00 - 16:00

2 September 1995 ***(SATURDAY)***

INTERNATIONAL QL MEETING

(Sponsored by: Sin_QL Air)

St Joris College
Roostenlaan
Eindhoven
THE NETHERLANDS

4 November 1995 ***(SATURDAY)***

INTERNATIONAL QL MEETING

(Sponsored by: Sin_QL Air)

St Joris College
Roostenlaan
Eindhoven
THE NETHERLANDS

Reader Profiles

Bielefeld, GERMANY - Michael Simpson

Figueretas, Ibiza, Balearic Islands, SPAIN - Anthony P. Magnus

St Cloud, Florida, USA - March R. Renick, Jr.

MICHAEL SIMPSON - As you will no doubt realise from my name I am English, but have lived in Germany for many years. I have been a QL fan virtually since the machine appeared, having first had a Spectrum.

I currently have my original JM ROM QL in a Falkenburg tower case with a Gold Card, his hard disc and two ED floppy drives. I also have an Atari (QL Emulated), which I still use occasionally, but my prize possession is now a PC with QXL Card, which is what I use most of the time, and I cannot recommend this highly enough. Now that SBASIC has arrived, this machine is virtually my ideal.

I have a Fujitsu DL 900 printer. This printer has the great advantage of accepting A4 paper landscape, so that setting the print size to small, I can get an immense amount of information off my spreadsheets on to the paper across the width. For those of us using spreadsheets, an invaluable asset. I also use a tried and trusty NEC P6 workhorse of a printer.

The main programmes I use are Datadesign, QSpread and QD. I still use the Editor Special Edition and Perfection, but find that I am using them less than I used to. The reason being that they cannot take advantage of the high resolution provided by the QXL. This is a great pity, as they are excellent programmes.

The problem is that their windows are fixed to the original QL size, and cannot be expanded, as with all Pointer Environment programmes, to cover a large area of the high resolution screen. There is , in my opinion, a crying need for a genuine word processor which operates under the P. E., and I also miss a P. E. programme simular to Easel, preferably to be used in conjunction with QSpread, as with Easel/Abacus.

I attend many of the QL European meetings, particularly those held in the UK, Holland and Germany. I am fortunate in that I spend at least one week per month in the UK and can often combine my visits with a QL weekend. I am a member of QUANTA and receive most of the available QL publications, including, of course, IQLR.

ANTHONY P. MAGNUS - Firstly I've recently celebrated my 70th birthday, so as you can imagine, I don't have much interest in producing programs, just using the ones produced commercially. I retired as Assistant Hon. Treasurer from the English-Speaking Church on the island of Ibiza last December. But, I still had a balance sheet to produce and have it audited. Everything for the Church by way of financial detail was produced with Perfection (I did not have Text87 and LINEdesign when I started the job).

My set up consists of a JM QL with microdrives removed (I had one of the first QL's out of Sinclair, it had a dongle) subsequently changed three times. Additions include a keyboard interface and Epson keyboard from W. N. Richarson & Co., a Super Gold CARD and ED disc drives from Miracle Systems. I use an Epson FX80 an Epson LQ500 and a Cannon BJ-10sx printers. I find the Cannon BJ-10sx printer to be the best of the lot especially with LINEdesign which is my main interest at the moment.

At the moment my wife and I are working on a "Book of Testimonies" for the Church using my QL, TEXT87, LINEdesign and Publisher's Pack. On another note, I have not been able to find another Qler on the island either myself or through Quanta.

(Editor's Note: Mr. Magnus has finished his book and I thank him for sending me a copy. It is a great pick-me-upper when you see all the different things Qler's are doing with their machines. I also received a second book and disks from Mr. Brian E. Nash of the UK, this one was produced using Perfection as the word processor. Thank you Mr. Nash.)

Reader Profiles - (cont'd)

March R. Renick, Jr. - In the computer field, I didn't get a chance to get into the basics until quite late. I've always been involved with electronic endeavours but just couldn't find the time until 1981 when I became aware of a computer show at the Washington D. C. Armory. At the show I chanced upon a booth where Sinclair was featuring the ZX-80 for the sum of $100 US. I managed to justify purchasing this new toy. Needless to say, it and later its cousins, right up to the QL, took over my spare time with any spare $$ and I've been hooked ever since.

In December of 1984 I came in contact with a local user group (Capital Area Timex/Sinclair User Group fondly referred to as CATS), but being the type that usually takes a back seat because I guess, that I was embarrassed to have anyone know that I really didn't understand what they were talking about. If it had not been for the collective patience and understanding of the group members I'm sure I would have become discouraged and dropped out. If I have learned anything over the years is that the members of the CATS group are a fine example of all those users who are capable and willing to help where ever they can. I really didn't fully understand or appreciate this until after I retired and moved to Florida. I found that I lived in an area of Florida where no one was involved with Sinclair computers.

Doing a singles act has its limitations and if you wish to survive you have to find ways of overcoming this handicap, I started by writing letters to a few of the members of CATS, asking questions about how to do this or that on the QL. As a result, I've been making real progress in using my QL. Along with the help I receive from many individuals, I subscribe to a number of User Group newsletters, I am a Quanta member and I subscribe to IQLR. All of which are valuable tools in helping me understand and get more enjoyment and satisfaction from my hobby, the QL.

I presently have three QL's, two are fully operational and the third is kept as a spare. All three have their original circuitry with some modifications to the voltage regulators, all of which have the JSU ROM's. They are in the original cases with the exception that I run Rotron fans at each end of each computer. They run cool and so far I have had no problems. My main system is comprised of a QL, a Super Gold Card and two 3.5" ED disk drives from Miracle Systems and a pair of 5.25" quad density drives. The printer is a Star NX1001 and a Sinclair Vision Monitor. The second system is made up of a QL, a Gold Card, a set of 3.5" ED drives, a set of 5.25" quad density drives, a Star NP-10 printer and a Sinclair Vision Monitor.

Both systems are fully operational. I get the most use out of the QL as a word processor with spreasheet work coming in a close second, then comes database use. I've yet to feel comfortable using graphics, but have mastered numerous utility progams. There is truth in the old adage "You Are Never To Old To Learn".

QL Clip Art Collection V2.12

Zagreb, CROATIA - Drazen Giojnaric

This QL Clip Art collection contains over 10,000 images converted and ported from the Public Domain and from commercial sources. You can use the images without any restrictions. All the images (screens) were converted using Carlos Delhaz (thanks Carlos) powerful "unGIF v0.73" and my own routines. Whenever possible pictures were converted in their original sizes and are compressed with LHQ archiver, which is included on the disk.

The price is 10DM plus $7.00 (US) for overseas customers which includes an HD diskette loaded with the collection, a registration form and special bonus. For additional information or to order please contact me at:

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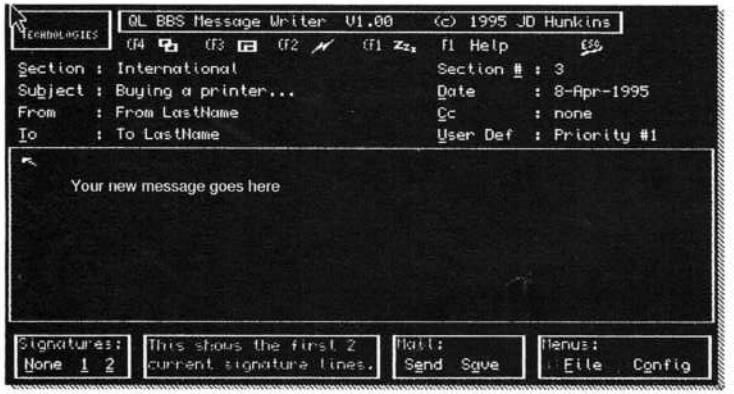
- automatic resize to give maximum number of entries
- create new mail
- save or send messages
- uses scripts to communicate with QTPI
- incorporate your original message in your response



Full Pointer Implementation

- resizing/moving of window
- drop down menus
- mouse or key stroke entries

Dynamic Scrolling Menus

- automatic resize to give maximum number of entries possible within the main window
- uses pointer scrolling/arrow controls
- remembers last choice

Other New Features

- new sorting/configuration abilities
- load new messages without exiting program
- remove unwanted messages from message file
- automatic message filters for non-native formats

Availability/Ordering

- available late August 1995
- freeware
- shareware distributors and networks
- JDH Technologies
  Internet: jdhunki@ibm.net
  Compuserve: 72567,3624

PROforma & Software Development

Veltem, Belgium - Joachim Van der Auwera

In the past months and years, we have seen many developments in the QL market. Many of these developments gave us the powerful computer we have now. We have good hardware (with a choice of Super Gold Card, Gold Card, QXL and Atari ST/TT). We even have a large choice of mostly compatible operating systems like QDOS, Minerva and SMSQ/E. Unfortunately (and quite remarkably - this does not happen in any other computer market), more advances have been made on the hardware and operating system side, than for the general applications.

So what is the problem with writing new applications ? We all know that it requires a lot of work, and that the QL market is too small to make this a full time job. But if it is possible to develop the hardware and operating system, then applications should not be a problem. This is not quite true, applications have the problem of dealing with the outside world (the user), and users tend to be pretty demanding.

Generally, applications have a few important parts : the user interface, file management, hardcopy production and some application specific handling. Apart from the application specific code, some toolkits could be used to improve the speed and quality of the program. For example, use of the Pointer Environment gives the user a known interface to use, and the programmer is relieved of some of the burdens of writing a user interface.

PROforma ??

Another important part is generating hardcopy. Most users want to see something on paper eventually, and this is the part where PROforma can be of great use. PROforma was written to allow a powerful general method of drawing on screens and printers, independent of the type or make. PROforma has been available for more than a year now, but we see that no other application developers have realised the advantages that PROforma can offer to their products.

PROforma would be useful for most applications because :

- ***PROforma*** supports a wide range of printers. We provide drivers for all the popular printer languages (ESC/P, ESC/P2, PCL5, Canon-BJ) and types (9-pin, 24-pin, inkjet, laser).

- ***PROforma*** generates high quality output. PROforma is capable of using the best quality your printer can produce.

- ***PROforma*** provides a large set of commands, allowing PROforma to be used for just about any job. It can be used for high quality graphical output (like for LINEdesign), for producing text intensive output (e.g. PFdata), and even for traditional simple things like listings (PFlist). Unfortunately I have now already listed all programs available which use PROforma. Let's hope this changes soon.

- ***PROforma*** makes it easier on the developer. You have a standard and powerful interface which can be used for all supported printers. So if your application uses PROforma, you can immediately generate output on a large range of different models.

- ***PROforma*** is reliable. Because PROforma is used by many applications, any possible problems can be spotted and fixed sooner. And more important, a problem is always solved for all the applications at once.

- ***Less time*** is lost. Instead of worrying about how to support a printer, or how to write drivers, you can concentrate on the important stuff : making your program better, or making your printout look good.

- ***PROforma*** is still being developed. In the year since the release the speed of producing an avarage page using PROforma has increased a lot (especially for printing text). Every time we improve PROforma, your product gets better as well.

PROforma & Software Development - (cont'd)

- ***The user*** of your program has less problems. He or she only has to know something about one printer driver. Your user doesn't have to worry about translation tables and that kind of stuff. If you're lucky, he or she already has another program which uses PROforma, so they don't even have to configure anything. Just run your software, which means less queries about using your program.

- ***When PROforma*** is improved to be more powerful, like supporting colour, dashed lines or something else. You will have little trouble to make your application use this as well. Making your program even more interesting.

- ***If*** more applications use ***PROforma***, then this could be a large step forward for the quality (and hopefully amount) of software available for the QL. This can only help in making the QL scene even healthier than it is now, and this can only be to your advantage.

So why are you not using PROforma in your applications ??

Of couse, if you have any questions about whether PROforma could help you make your software better, or how this can be done, you can always contact PROGS, tel/fax +32 16 488952.

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April 1995

Ergon Floppy Disk Utilities

Massapequa, New York, USA - Bob Gilder

My affection for the Ergon Floppy Disk Utility program first started when I received a PD diskette containing the Ergon Demo Disk from the IQLR Software Library, IQLR-022, US $2.50. I had no idea that this disk contained the FDU program. All files on the disk were archived and had to be unzipped and even this process was painless as the programs to be unzipped were menu driven.

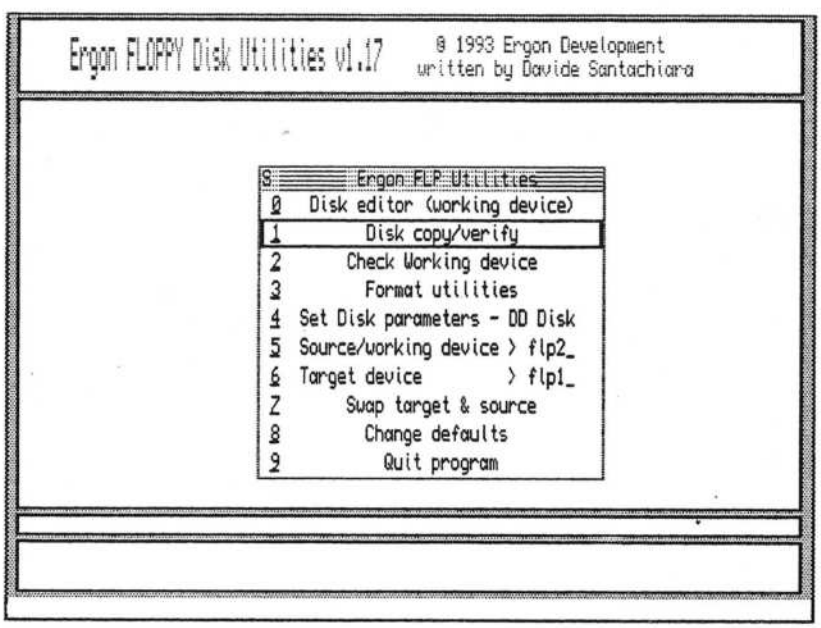
Looking over the menu I decided to first unzip the FDU program and print out the manual. Not all of the 'Tools' were available on the demo disk, however, the disk utilities (or Tools as the author identifies them) which were available were easy to use and extremely powerful.

Before reviewing the software, I would like to state that I was very impressed with the demo version of the Floppy Disk Utility, so impressed, that I immediately purchased the full blown version of the FDU and a 40 page, comprehensive manual. The manual provides the QL user with lots of information on disks which has not been provided in any QL software manuals that I know of. The FDU manual provides a tutorial section, covering most of the disk utilities including how to 'collect' a file within the diskette.

What makes the FDU software outstanding? Well, the FDU program is totally MENU driven and easy to master. I have used several Disk Editors during the past few years and the FDU Disk Editor out shines any of those Disk Editors which I have used! Disk copying, formatting and verification handles any DD, HD and ED diskettes, as well as alien disks, such as an IBM format. Setting the drive parameters are easy as well as changing the drive designators; it caters to FLP1_ through FLP4_. And another tool which I am just learning to use is the 'File Collector'.

Now for the review:

All of the Disk Tools are activated from menus. For each category of Tools, there may be additional menus, or perhaps we can call them sub-menus. The menus have a cursor bar (a rectangle around a tool or function) indicating it's presence as the current tool to be activated. The QL UP/DOWN cursor keys navigate the cursor bar to the desired tool for operation. A hit or do (Space or Enter) will activate the current Tool. Note: The menu system is not Pointer I/F driven. On the left-hand side of the Main Menu, there are numbers from Zero (0) to Nine (9) which will also activate a Tool from the keyboard.



For instance, suppose we want to activate the Disk Editor. You can either press the '0 key' or place the cursor bar on the first menu item and press Enter. When the Disk Map is displayed, we may want to enter a NAME for this disk. Press F5 and a RED blinking cursor is stationed on the first byte at location 0000. Press the 'TAB' key and the cursor jumps across the HEX display to the 'Text' area where we find the Disk code QL5A for DD disks or QL5B for HD and ED diskettes. The next 10 spaces are designated for a disk name where we can enter a name directly on to the disk. After a name has been written in the designated area, press the Escape key. Now press F3 and another menu 'pops up' and as we look at this menu, item number 4,

'Write sector menu <ctrl w>', you may move the cursor bar to line 4 and press Enter, or enter '4' from the keyboard or you may enter the key combination of 'CTRL/w' which writes the disk name we previously entered onto the diskette itself. I have used other disk editors for the QL and I must state that the FDU Disk Editor is the easiest and most powerful disk editor to use.

One of my first experiments with the disk editor was reading an IBM disk from the disk editor and try an experiment by changing the first two lines from a QL disk. I had over written the 'QL5A and the DISK NAME as well as any additional code on both lines with:

Line 1 .4.TAN 3.3.....
Line 2 .P.....

Then I BOOTed up Conqueror and copied some IBM files onto the disk which I had modified from the Ergon disk editor and ran the programs in the IBM mode. Maybe I was just lucky that the programs ran. Again, it was just an experiment. NOTE: I tried to change another QL disk to the IBM format and it failed to work!

Another feature of the FDU Disk Editor provides a menu to get disk directories. Entering F3, then a key press of 3, activates the 'Get Directory Info <ctrl d>. This now leads you into another menu, 'Directory Info':

Directory info

0 Get Directories (map)
1 Get Directories (full disk search - no map
2 View Directory
3 Sort Directory
4 Forget directories

Pressing 1 from the keyboard activates The Directories screen. The first line of the Directories screen prompts for a printout from your printer. Press Y or N and within a few seconds data begins to appear on the screen, such as:

Directory Full Search

Echo to your printer [y/n] >n
Scanning disk...

file $001 FDU
Len: 5545 Type $00 1995 MAR 15 10:30:19
file $002 FDUa
Len: 5545 Type $00 1995 MAR 15 10:30:43

Press any key to continue..

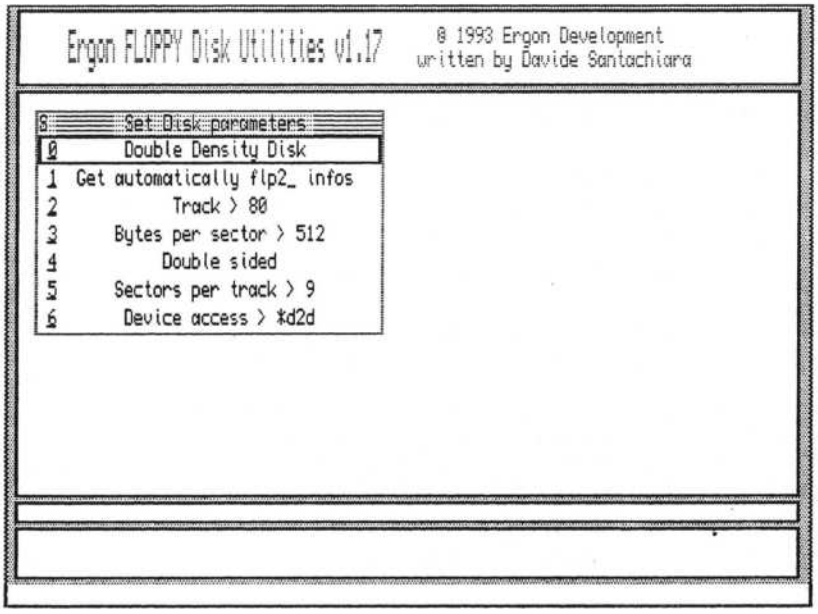
If you want to 'LOOK' at a file on the diskette, you can enter the file number as assigned when you get directory information. While I am writing this review, I have multitasked The FDU program and the Editor SE and toggle the screens back and forth. There are times when I want to look at the text file on the disk, I activate the disk editor and instead of getting the file number I scroll along with the right cursor key until I enter track 1, side 0, sector 1, part 1/2 where there are segments of my text file. Occasionally I may find a 'typo' and make the necessary changes to the text and have that particular sector over write the text. Naturally, I could go back into EDITOR and make the change which I do any way.

If you have a desire to learn 'HEX', using the Disk Editor can be a great help. Again, enter '0' from the Main Menu to activate the Disk Editor, press F5, press TAB for text entry. Now slowly enter characters (letters, numbers or any characters) or overwrite a word within the text area and you will observe that the HEX display on the left hand side of the screen will display the new HEX code characters as you are entering them.

Ergon Floppy Disk Utilities - (cont'd)

Lets take a look at the next Item on the MAIN MENU, which is Disk Copy/Verify. Before activating the Sector copier you should make certain that the source drive and the target drive designators are correct and that the density is set correctly. If the drive designators such as the source drive need changing, say, from Flp1_ to flp3_, press '5' from the main menu and then press '3' on the source/working menu and the drive designator is set for Flp3_.

If you require a change for the disk density, say, Double Density to High Density, press '4' on the main menu and you will navigate to the Set Disk Parameter menu. Press the Space Bar once and the disk density will change from DD to HD (if you require ED, then you press the Space Bar twice and then ESCape out of the Set Disk Parameter menu. Press '1' on the MAIN MENU and you are in the Disk Copy/Verify menu.



Place your Source disk (the program disk) in the designated drive and a formatted disk in the target drive and hit either Enter or '0' and the copying process begins. At the bottom of the screen there are two narrow windows which provide a visual indication of the copying procedure - a series of green blocks scroll across the top window and when the target disk is copied, the lower window displays green blocks as that target disk is written to. If you have also selected verification of data from the source disk to insure that the data has been copied correctly onto the target disk, the bottom window will now display white blocks as the target disk data is verified.

The nice feature of using a sector copier, is that the target disk must be formatted, however that doesn't mean that you can't use a disk for the which has data written to it, that isn't needed anymore. You do not have to re-format that disk if you want to make a disk copy using a sector copier. I write a lot! when I have finished writing a long text file and have saved it twice using two different names, the disk becomes fragmented. I then load the completed file into The Editor or perhaps, Quill and write the whole file to a fresh disk and place the original 'work' disk in a box, expressly for over-copying with the sector copier. And....if you are not so lucky while you are copying a disk which has a bad track(s) and sector(s), FDU will stall, you will find a RED block will now alert you to that fact. You will also hear a faint 'twang' as the drive head reads off the bad tracks and sectors and displays each track and sectors in red on the screen. At this point I will ESCape out of the copying mode and remove the corrupt disk and try again with another disk.

Normally I throw out disks which display bad tracks, however, there is one exception to this rule....if the bad track is located at track 78 or 79, I would use it as a work file disk.

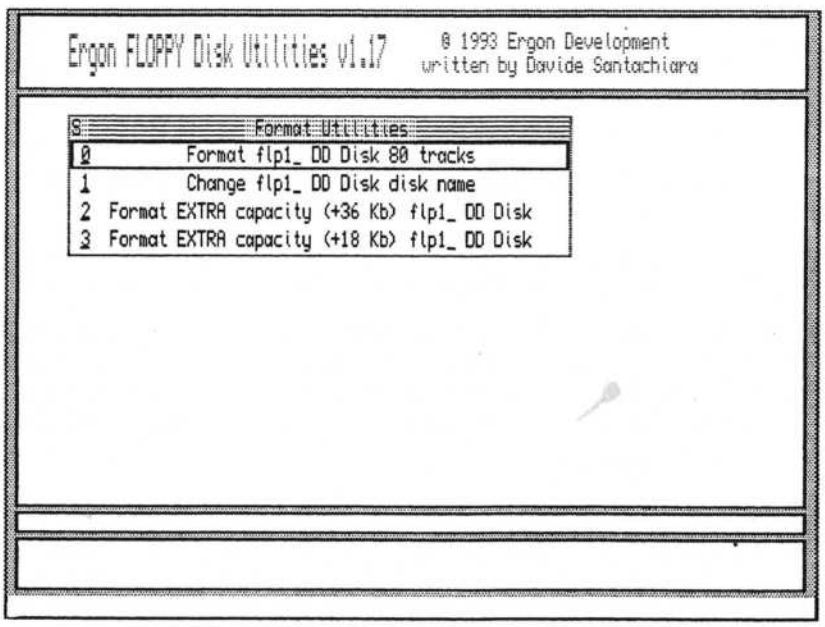
There are two other features that are within the disk copy menu which I use quite often - multiple disk copying and single disk drive copying. Recently I became the US east coast QUANTA sub-librarian. The multiple copying feature allows me to make as many copies of new library software, such as an updated Libguide disk; the master disk would be copied and verified only once and then multiple copying would commence and each disk copy would also be verified. This way there would never be any software returns! The disk copy/verify menu allows the user to indicate the number of diskettes to be copied...A very nice feature, indeed!

My QL's are housed in PC AT cases, four drives each. Drive one is an ED drive, drive two is a 720K, 5.25"

drive and drives three and four are 720K, 3.5" drives. When it is necessary to backup an ED disk or a 5.25" disk, single disk drive copying is mandatory. FDU allows the user to set, say, flp1_as the source and flp1_as the target drive. The only caution necessary is that the disk density MUST be correct! Enter '4' from the main menu, either press '0' or toggle the SPACE bar until you reach the desired density and then press ESCape. Press '1' from the main menu which will display 'Copy ED disk 80/DS/10 flp1_ to flp1_' and press ENTER. When the source diskette has been read a prompt will appear on the screen advising the user to remove the source disk from drive one and insert a blank disk into drive one and press ENTER - the target disk will now be copied.

The Format Menu has some really interesting features, as the menu below indicates:

0 Format flp2_DD Disk 80 Tracks
1 Change flp2_DD Disk name
2 Format EXTRA capacity (+32Kb) flp2_DD Disk
3 Format EXTRA capacity (+18Kb) flp2_DD Disk



The drive designator 'flp2_' happens to be the Target drive which can be changed at will from the target menu. The '0' option will request a name for the disk to be formatted. Option '1' will request a disk name change. Option '2' and '3' are a little more interesting, since they can provide the user with up to 18KB or 36Kb on a DD disk. It does work, after all, the MAC formats DD disks to 800Kb. I formatted some disks for EXTRA density and neither did the QL or disk drives baulk at the added capacity. The only problem that I did have obtaining the EXTRA disk capacity was that I had to use my ED disk drive as the host drive. The EXTRA density for DD on a DD drive only formatted 720 sectors instead of 1440 sectors plus an additional 5% more capacity and the same results were for HD disks.

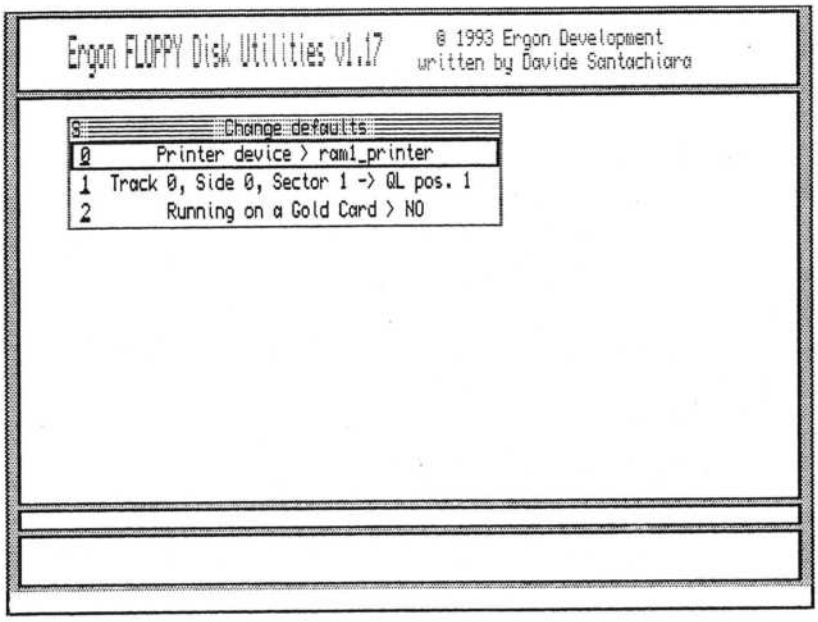
The ability to add EXTRA density to diskettes is due to the FLP_TRACK option within the ROM on the Gold Card and the Super GOLD CARD. Setting the Disk parameters from the main menu to HD and ED disks, the EXTRA capacity can be a welcome bonus:

HD Disks EXTRA Density +72Kb or +36KB per disk.
ED Disks EXTRA Density +160Kb or + 80Kb per disk.

There is one more menu, number 8, 'Change defaults'. If you intend to print out a hex dump of the current sector displayed on the disk editor you can change the printer device default, ram_printer to Ser1 or PAR. You can change the default disk display on the disk editor to any track and sector you desire and the last default to change is Running on a Gold Card Y/N.

So there you have it! I haven't touched upon all of the 'Disk Tools' from the Ergon disk utility, I leave the rest to you for further experimentation with this program. Again, the manual provides information as to where the update file dates are located and how to collect a file on disk.

Ergon Floppy Disk Utilities - (cont'd)



You are never 'kept in the dark' whenever you use this utility, as there are numerous prompts for most of the FDU features. It would be nice if a display of dashes were present when formatting a disk as is present when either disk copying or disk verification is accessed. I've made a request to the program author, Davide Santachiara, to add a de-fragmentation utility for the FDU program. For me, it would then be a complete floppy disk utility program.

NOTE: If you purchase the Ergon Demo disk, you may find that when you UNZIP the files using the menu driven program on BOOT2, you will note that all of the files have 'ergon_' appended to the files which will give you an error. You can either append each sequence of 'UNZIP' to ergon_unzip as well as the additional files or using a program such as Taskmaster, entering the RENAME facility, delete the name 'ergon' from all of the files you intend to unzip without any errors occurring.

(Editor's Note: Ergon Development software is available directly from Ergon or from major QL stockist world-wide.)

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An ABACUS Without Beads

Amsterdam, THE NETHERLANDS - Geoff Wicks

Mention the wood "Spreadsheet" to the experienced computer user and he will immediately think of a programme for displaying, analysing and manipulating numbers. Indeed the name of the QL's spreadsheet, ABACUS, indicates that it is a programme which involves calculations. The idea of a spreadsheet without numbers would appear to be a contradiction in terms. It would be like an abacus that had all its beads removed and was just a useless frame. However in the QL's electronic abacus that frame, even without its "beads", is one of its most powerful features.

Basically a spreadsheet is a very big table and contains useful commands for drawing the box or frame containing the table. The use of instructions such as "row = rept ("-", width- ()+1)" or "col=":" " means that the frame of the table can be constructed very easily and quickly. The GRID command enables you to change your table by adding or deleting rows or columns or changing the width of a cell. The AMEND, ECHO, and RUBOUT commands allow the information contained within the table to be easily manipulated and the JUSTIFY command helps in improving the appearance. All these commands make it easier to compose a table with abacus, than to design it in a word processor using the TAB command. It will often be quicker to compose a table in abacus and then export it to your word processor than to type it straight into it.

One of my first numberless spreadsheets was used to help in the planning of the work of a committee of which I was secretary. One column was for the name of the month and one column for each week of the month, (the last "week" of the month sometimes having ten days). For each month three rows were available. Including the frame of the table there were 13 columns and 54 rows used. The spreadsheet showed when meetings were to be held and the main items to be discussed; when reports had to be ready or were expected to be received; and when members of the committee were due to visit departments of the agency.

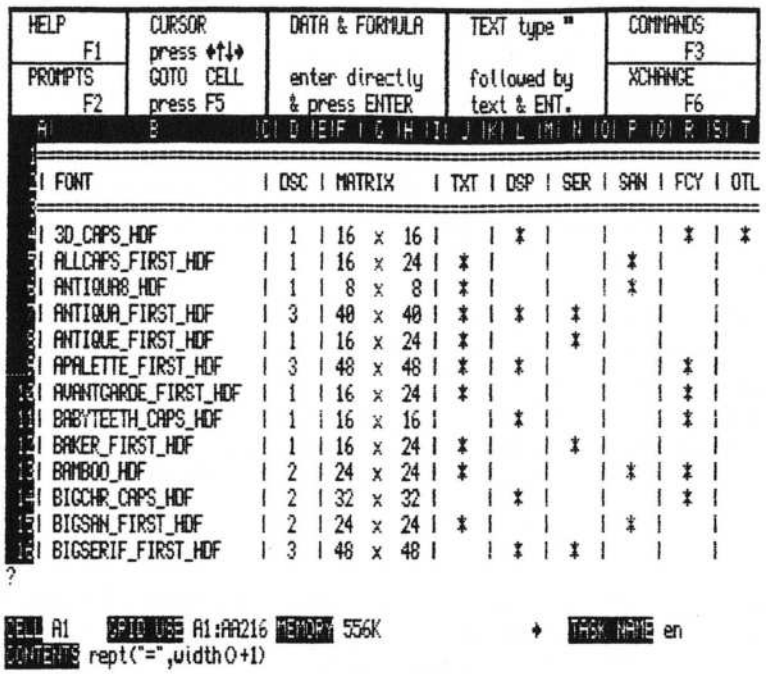
It was easy to alter details in the light of developments using the AMEND command or by entering the new details into the cell. Every 3 months the last 9 months were copied to the top of the spreadsheet using the ECHO command and the provisional planning for a new 3 months was entered at the bottom. By printing the spreadsheet in compressed mode, I was able to get a year's planning on one side of A4 paper. I had expected some ribald comments from committee members about needing reading glasses, but, in fact, received only praise for producing such a compact planner for the committee's work.

Anyone who regularly produces a duty roster will find Abacus a useful tool. In rosters the basic form of the table usually remains the same from month to month and only the details differ. You could define ALTKEY commands for the names of the people on the duty roster or for the hours of work involved and thus save yourself a lot of typing. If you really want to be clever you could also design a spreadsheet which calculates for you the hours worked for each worker, and thus save yourself more time.

Finally some words about my latest numberless spreadsheet. (In fact it does contain numbers, but no calculations are involved.) The inspiration for this spreadsheet came when I had to produce a short document using Professional Publisher and had about an hour to do it, of which I needed half an hour for printing. I wanted to use a font which resembled handwriting and have several suitable fonts, but I did not know how many. There was no time to pick the most suitable and I had to use the first one that I came across. I realised that although I had many fonts and printed samples of them all, I had no easy system for choosing the most suitable font for a particular task.

The obvious solution was to set up a small database using archive, but this had the disadvantage that it was first necessary to write an archive programme. It would have been a relatively easy programme to write, but the job could be done much more quickly using abacus.

Figure 1. (on the next page) shows a part of the spreadsheet. Firstly there is the full name of a font. This is necessary as Professional Publisher fonts often have long names. My fonts all fit on an ED disc, but the back up copies are divided over 3 DD discs, so that the disc number is included in the spreadsheet. Then there is information on the size of the font.



(Figure 1)

Finally there are columns which indicate the nature of the font. They indicate whether it's plain serif, plain sanserif or alternatively a more fancy font and which fonts are outline, handwriting, modern or olde world. When printed out using an Elite typeface the spreadsheet just fits into the width of A4 paper.

In this particular spreadsheet the ORDER command is very useful. New fonts can be added to the bottom of the sheet and then sorted into alphabetical order. Using the command the fonts can also be sorted according to disc number or matrix size. I have used asterisks to indicate whether a font has a particular attribute so that using the ORDER command in the "HND" column allows me to group all handwriting fonts together. I now know that I have 212 propub fonts and that 7 of them resemble handwriting!

The use of a spreadsheet in this way does have some disadvantages. When entering text you have to remember to start with a quotation mark which is a little bit irritating. Abacus only sorts in ascending order, which means that all fonts with the same attributes are grouped together at the bottom of the spreadsheet whereas the top would be better. Finally there is a limit to the number of fonts that can be included. When I have 250 then I'll have to use the "EXPORT" command to start an archive database.

A spreadsheet does not have to have numbers, but in case you are wondering....yes, I do sometimes use abacus with its beads.

Computers 101 (an Addendum)

London, ENGLAND - Mark Knight

2.5 NEW KINDS OF RAM; ECC RAM AND EDRAM.

One recent buzzword in the computer industry is EDRAM; this is short for Extended Data-out RAM. EDRAM is simple DRAM with an access time of 60ns or so, but with a small built-in area of fast 20ns RAM. The faster RAM is used in a clever way as a sort of internal cache, so the chip, which is basically a 60ns RAM chip, behaves as if it were 20ns RAM most of the time. The result is fast RAM without the full cost, though EDRAM is more expensive than ordinary DRAM. So yet another kind of cache now exists, one built into the memory chip itself!

ECC RAM is, if less well-known, more revolutionary and much more expensive, and is currently the most expensive kind of RAM chip in existence. ECC RAM means Error Checking Correcting RAM.

What has not been stated so far, but is unfortunately true, is that all RAM chips occasionally fail to do their job properly in some way. This is not simply when they are faulty, but perhaps when a mains power "ripple" or "spike" affects the computer, or some radio interference or magnetic device affects the chip directly.

When this happens, some data or instruction written to the computer's memory is wrongly stored or wrongly read back. The result may be that the computer program running crashes, or that it obtains an incorrect result performing a calculation, or a character being typed into a document is changed. This does not happen very often, usually on a well designed system once every few hundred thousand hours of computer operation, so the effect is ignored, and we usually assume that RAM always works flawlessly.

For some applications however, this is not acceptable. Banks and financial institutions have been correcting the errors that occur using software methods, but now ECC RAM does it for them on many systems. The data in ECC RAM is stored in a special way with some extra error-correcting numbers in a reserved part of the chip, and when it is read back the chip can reconstruct the original number even if something has gone wrong, using a special error-correction calculation.

As the calculation is performed in hardware on the chip, it is much faster than using software to check everything. It is also incredibly expensive, and so is only used in mission-critical systems, serving networks of computers handling financial or other sensitive data. The data could in theory still be wrong, but it will be wrong once very few million years of computer operation instead of once every few hundred thousand hours. Should be good enough even for the tax man...

NEW Product!! QPLANE

Braintree, Essex, ENGLAND - Ron Dunnett

Editor's Note: *The consortium of Zeljko Nastasic of Croatia and Ron Dunnett of the UK have launched their second product "QPLANE" a powered QL Back Plane. From personal experience, get the deepest tower case you can, usually 16" or better (this can eliminate or reduce any cutting of the case's frame that otherwise might be necessary). If you have been thinking about putting all you QL gear in a proper case "QPLANE" will make life a lot easier and neater.*

This new product has been specifically designed to utilise a PC style Power Supply Unit as is found in most PC type cases including the full range of desktops and tower cases. Located on QPLANE are two 6 way power connectors that match up to the special connectors (normally know as P8 and P9) that are supplied with PC Power Supply Unit. These connectors (P8 & P9) would normally supply power to a PC Motherboard but when attached to QPLANE, which in turn is connected to your QL, will now supply the power to run your QL and expansion boards such as Trump Card, Gold Card, SUper Gold Card, QBIDE, etc., etc.

There are small modifications that will have to be made to the QL motherboard and your expansion systems in order to allow them to successfully work with a PC Power Supply. These modifications do not require any major technical skills other than the ability to strip wire and use a Soldering Iron. An INFORMATION leaflet accompanies QPLANE explaining how to accomplish this with the most popular expansion items mentioned above.

QPLANE has 3 Expansion slots allowing connection of any add-on board that would normally go into the QL's expansion connector on the left hand side of the QL. Having 3 expansion slots available will hopefully be enough for all your various add-on boards plus, give the opportunity for future hardware products to be added at a latter stage. In the past there has always been a problem with designing new hardware products for the QL with regards to where they could be attached to the QL. Most QLer's either have or have seen a Ql that seemed to be a mile long with add-ons precariously flapping about in the wind just waiting to be knocked and crashing the QL.

With QPLANEadd-on boards can be neatly stacked and securely locked together, with the added plus that restrictions can be lifted on circuit board size of future products. QPLANE is available for the sum of £25 inclusive of P & P in the UK (+5% Europe +10% Rest of World) from QUBBESoft P/D (please note our advert elsewhere in this issue.

WHAT WILL THE QL COLLECTION COST ME?

Just **£179 in total**. There is nothing to add, no hidden taxes, and P&P to anywhere on earth is included (add £5 for Airmail). You save over £2,100. DP recognises that you probably have some titles already (though perhaps not the latest releases), and some may not be of interest to you yet (likely to change when you see them!) - the price reflects this! **THE QL COLLECTION** is worth it even if you only want to update all your existing DP products: however, DP will continue to accept orders for *individual* DP programs at the prices quoted if you really insist.

WHAT EXACTLY IS INCLUDED IN THE QL COLLECTION?

You get the fullest, very latest, most up-to-date releases of all - **every single one** - of the **66** QL programs listed. The software is the finest, and the QL's very best. The titles would cost you over £2,300 (plus applicable P&P) to buy individually - you can check this by summing the prices overleaf, or those quoted in earlier ads. The only titles omitted are Mega Dictionary (only for 2Mb RAM systems - add £15 for it), MS-DOS v6.22 upgrade (add £90) and any less capable variant of a title that is itself included in **THE QL COLLECTION** (e.g., since the top-of-the-range PROFESSIONAL PUBLISHER is included, DESKTOP PUBLISHER is obviously excluded). You get both versions of PC CONQUEROR (as the list shows) so as to cater for all hardware variations. You may never ever need to buy another QL program again. The range of software you will get is truly staggering. It is too good to be true. But it is true - while the offer lasts....

WHAT ABOUT THE PROGRAM DOCUMENTATION?

All the latest applicable documentation (lots and lots of it) is included on disk, and can be read and printed using Perfection Special Edition or Editor Special Edition, which are also both included, and which can - of course - be used to search, browse, analyse or "edit" manuals at your leisure. Printed copies may be bought later if wanted - full details are sent with the order.

WHY CAN'T I FIND THE CATCH IN ALL OF THIS?

Because there isn't any. DP, whose QL commitment continues, makes this super offer to celebrate the birth of a marvellous baby daughter Michelle, now through all her early problems, to Julie and Freddy. **THE QL COLLECTION** is licensed for use by the purchaser alone, who by buying it agrees not to resell or otherwise pass on any part of it, or of any DP software already possessed. Technical support is negotiable: full details are supplied with the order for you to take up should you want to do so. DP *reserves the right* to withdraw **THE QL COLLECTION** offer at any time later than 14 days after your receiving this magazine, so please do hurry.

WHAT HARDWARE WILL I NEED TO RUN THINGS?

You will need a twin disk drive (DD, HD or ED, 3.5" or 5.25"), lots (123?) of blank disks and over 1.5Mb RAM (Gold Card, Super Gold Card, QXL, ST/QL and equivalents) to fully use **all** the software. The vast majority of titles will, however, work on much smaller systems: earlier DP ads indicate with precision the minimum hardware needed to run each program. If no disk size is specified when ordering, DP will assume 3.5" DD. If you do not yet have a powerful enough QL system, you may wish to contact a hardware dealer and buy, say, a second-hand Gold Card and/or twin disk drive (preferably 3.5" DD or HD - avoid Mitsubishi, and if HD or ED, ensure 100% compatibility with all Gold Cards is *fully guaranteed* by the supplier) as needed.

HOW CAN I GET MY COPY OF THE QL COLLECTION?

THE QL COLLECTION can only be obtained directly, by posting your order (including payment of £179 by cheque drawn on a UK bank / building society, Eurocheque or postal order, or quoting a VISA or MASTERCARD credit card no: and card expiry date) as soon as possible to:

DIGITAL PRECISION LTD, 222 THE AVENUE, LONDON E4 9SE

THE QL COLLECTION

AMADEUS INTERLINK

has arrived!

The ultimate expansion for the QL

Now easily connect up to 255 I/O interfaces to the QL. The Amadeus Interlink system is a local area network capable of linking up to 255 devices such as computers *(PC's & QL's at the moment, others to follow)*, Centronics interfaces (bi-directional parallel printer ports), Sound interfaces, RS232 ports and other useful I/O interfaces.

Gone is the jungle of QL expansion problems! Amadeus system interfaces are housed in small, smart, black enclosures that are easily stacked on their sides or tops. Approx. measurements 4.3"x2.3"x1.2" (112x62x30 mm).

Now it is possible to access *any number* of Centronics interfaces. These are used for fast data transfer to parallel printers or, Lap-Link style bi-directional communication. *Unlike some*, these interfaces are implemented to the - full Centronics Standard, i.e., all error, control, and data lines are connected. All are accessible from software. Like other network interfaces, network printers can shared by all linked computers. Using Amadeus, the QL is quite capable of printing to more than one printer at the same time! The cost for these network interfaces?, just £35.00.

Now another first for the QL, Record and Play back sounds via you computer. Our brand new product, Ama-Sound, is capable of recording and playing back sounds via any networked computer. Recorded files may be edited, stored and replayed. Complete with Microphone, Speaker and software, this interface at just £49.50, represents exceptional value for money.

Now Transfer data between connected computers at high speed. Over seventeen and a half thousand bytes a second are transferred between a Gold card QL and 486 PC!, *impressed?*, well try it with a Super Gold Card! The speed of transfer on a Trump Card QL roughly equates to 3.5" disc drive transfers.

TRIALS TABLE	Bits/second	Bytes/Second	RS232 equivalent
Trump Card QL - 386 PC	40000	5000	55000bps
Gold Card QL - 486 PC	142000	17750	195250bps
Trials carried out with 125,000 size file being transferred from QL RAM drive to PC RAM drive			

Soon Amadeus Protocol advanced inter-computer data transfer and file handling software will provide Amadeus with a highly advanced file serving and data transfer capability. All computers on the system will be able to; access each others disc drives and devices, send messages, handle remote text screens, etc., regardless of machine type.

Soon Fast RS232 interfaces capable of up to 115kbps will be available.

Soon An interface, especially designed for other manufactures or DIY enthusiasts, will be available to provide links for adding your components to the system.

Projects: Fileservers, memory buffers and many other useful interfaces are planned.

Amadeus Interlink has significant implications for the QL. Not only is it possible to link QL's to any number of I/O interfaces, but linking to other types of computer has also become a viable reality. Currently, QL's and PC's are able to access the system. Over a period of time, many other popular types of computer will be linked. Amadeus provides the ability to maximise resources, easily, and most importantly, ***at low cost.***

Potential users will obviously be interested in the network capability. Amadeus is capable of shifting data around the network at about 2.5 Mbps ***(unlike some networks there is no usage degrade)***. This may not sound very fast, but when you consider that 2.5 Mbps stands for 2.5 million bits per second, it will become apparent just how powerful the system is, (compare it to your 9600 bps RS232 baud rate).

Low Cost networking, from Di-Ren

Fleet Tactical Command II, QL & PC Versions
Users, please note this programme will be updated in the *near* future to allow usage over the Amadeus Network.

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Scripting in QTPI

Santa Clara, California, USA - James D Hunkins

Intro/Definition - Jonathan Hudson's QTPI program has been evolving for some time, beginning as a 'simple' terminal program under another name and evolving into a pointer environment, full featured communications package with drop down menus, multiple transfer protocols, etc. His latest version adds the powerful capabilities of scripting.

Scripting allows the user to write a separate program (in SuperBASIC or 'C') that can take over control of QTPI to do basic repetitive tasks quickly. This saves time (and therefore money), removes human mistakes, and lets us take advantage of the QL's multi-tasking to do something else while QTPI gets its business done without our help. Scripts are commonly used to download mail and messages, get current file lists, and upload or download files.

Of course, something that sounds as useful and powerful as scripting is only good if it is usable by the common QL owner. In this case, by taking advantage of the QL's flexible SuperBASIC and 'C' languages, Jonathan has delivered. To ease the learning curve, several examples are included with the program.

Despite the examples and good documentation, many people tend to avoid things that are new, usually because they 'look' intimidating. To remove the perceived obstacle, this article will demonstrate an easy method to develop your own scripts for whatever purpose you may need them.

The article will methodically develop a script that can be used to download messages from a QBOX based bulletin board (in this case, QBOX USA). An actual communication capture, listings, and a discussion will walk you step-by-step through the process. I have also included a few tips on things that you might run into when developing your own scripts.

So turn on your QL and get ready to push your communications envelope even further. It is a big and exciting world on the other side of your modem!

Basic Principles - Before getting to the fun stuff, it is important to understand the complete picture. As most people know, QTPI is a terminal program that communicates with terminal programs on other computers. Whether they are QLs or massive super-computers, it doesn't matter. The established communication protocols thankfully hide that from us.

QTPI itself runs as a regular program. If you look at a jobs list after you start QTPI, you will see several other programs owned by the QTPI program. These include QTPI Terminal, QTPI Serial Handler, QTPI Clock, and one of the QDOS XPR protocols. These are run separately so that they can do their work in parallel with QTPI using the QLs multi-tasking capabilities. This greatly simplifies the coding and smooths out the operation of QTPI.

QTPI (version 1.5 or later) supports the scripting capability through the 'Client-Server Manager' Thing (CSM) (also from Jonathan Hudson). CSM runs in the background as a QL Thing and handles the two way messaging that occurs between your script program (a client) and QTPI (a server).

CSM adds keywords to SuperBASIC and a library for 'C'. These keywords setup/remove the message paths between programs (CLIENT, FREECLIENT in SuperBASIC), and send messages back and forth (REQUEST).

QTPI has added the ability to work with the CSM Thing and can recognize several different types of REQUESTS. Think of the requests as parameters of the REQUEST keyword. The REQUEST parameter is sent to the other program. The other program then acts on the REQUEST parameter and sends a response back. The REQUEST parameter in this case is processed only by QTPI and doesn't actually do anything in SuperBASIC or 'C'. 'REQUEST' is the keyword that is used by SuperBASIC. A SuperBASIC example should help clarify this.

```
Ex:   REQUEST 'QTPI','UPLOAD file_name',a$
```

Scripting in QTPI - (cont'd)

In this example, REQUEST is the SuperBASIC keyword. The SuperBASIC script program sends the message (UPLOAD file_name) to the other program (QTPI). QTPI then acts on the message. Here the message requests that QTPI UPLOADs (this could be considered a keyword to QTPI) the file 'file_name'. When QTPI has finished, whether successful or not, it will send some kind of response back which the SuperBASIC script program will store in the variable a$ to be processed as necessary. This can be the result "OK" or another response of some type.

A script can be run alone or in this case directly from QTPI through the new option 'Run External' [or 'Run Script']. To run the script from within QTPI requires that the script program be executable. The program could be compiled SuperBASIC or 'C' or, with the newer Minerva ROM, uncompiled SuperBASIC (by QTPIs hooking into the Multi-BASIC vector).

Getting Started - Following is a list of the programs required and the versions that were used in developing this article.

QTPI Program v1.53 (v1.50 ok)	XPR Protocols v3.42
QTPI Documentation v1.52	CSM v1.17 (v1.16 is ok)

You will also need a moderately recent version of the pointer environment. If you have bought any pointer environment program in the last year or two you should be covered. I understand that the version of the pointer environment in the QUANTA library (for QUANTA members only) also works.

Before starting QTPI you need to load the CSM thing. Use 'LRESPR srvthg_rext' or equivalent to do so. Now execute QTPI.

Now, lets get a quick feel for how easy the CSM scripting works. If you are using a higher resolution display than the original QL's, move your windows so that you can see both the SuperBASIC standard screen and QTPI. Otherwise, just switch between jobs (SuperBASIC and QTPI) to watch what happens.

From the SuperBASIC command line, type CLIENT 'QTPI'. This just told the CSM thing to setup a message channel between SuperBASIC as a client and QTPI as a server.

Next type REQUEST 'QTPI','ASKT What is your name'&CHR$(0)&'joe',a$. You have now sent a REQUEST from SuperBASIC to QTPI to do an ASKT function within QTPI. This function opens a window in QTPI and displays a prompt 'What is your name'. It then waits for the user's input, with a default string 'joe'. Switch to QTPI and enter any name. After entering a name and pressing <ENTER>, switch back to SuperBASIC and enter "PRINT a$". You should now see the name displayed that you typed into the QTPI window. ***Simple, right?***

To finish this quick demo, a little house cleaning is in order. Type FREECLIENT 'QTPI'. This will remove the message connection between SuperBASIC and QTPI.

Basically, that is how it works. Looking at the scripting language document that comes with the programs you will see a list of many REQUEST functions (parameters) that QTPI recognizes. The documentation includes detailed descriptions and what they return in a$. These functions let you do everything from dialing into a BBS, download programs, and get specific input. From SuperBASIC or 'C' you can process the returned results and do whatever you need to do, without actually having to learn a new language.

Sample Script Development - Capture : Even if you have an excellent memory for details, it is just about impossible to remember the proper sequence and every keystroke required to perform the function(s) that you want your script to do. Therefore, it is a good idea to actually log into the BBS you want to write a script for and perform the actual function itself. While doing this, capture the entire session.

The script we are developing here logs onto a QBOX BBS (in this case QBOX USA), reads all the messages in three different sections, and then logs back off, all while capturing the messages to a file.

Take a look at listing 1 for the 'reduced' capture of this session. Whenever you see '...', lines have been left out which do not effect the script we are working on. This is done for clarity and space considerations.

Keyword sequences that require a response are underlined. The response that the script needs to return are shown in Bold.

outline : You can write the script directly from listing 1 but I find it very confusing. Since a single mistake in the script will keep it from working, simplification is in order. Listing 2 shows an outline of what the script is to actually do. Appropriate parts are taken from the capture shown in Listing 1.

The outline gives main function descriptions in the left most column. The 1st indent gives the key word sequences to WAIT for. The 2nd indent gives the required responses.

Script : Now that we have the script outline, it is a rather simple thing to write the script. Listing 3 shows the finished script. Here we will walk through the script, showing that it is nothing more than a longer version of what we did directly from SuperBASIC. It could also be written in 'C'. Since the 'C' version is a simple translation of the example shown here, I will leave it for you to try it if interested. I have found that writing a script in SuperBASIC is convenient as I can quickly modify it and try different versions if necessary. As before, we set up the message connection with the CLIENT command in line 50.

The script WAIT and CONVERSE words timeout if they don't receive a response within a set period of time. While there is a default timeout, you can change it with the TIMEOUT request as shown in line 60. I usually use a larger timeout just in case the bulletin board I am accessing has multiple lines and experiences occasional delays in responding (such as Compuserve). In this case I am setting it to 360 seconds. Actually for QBOX USA, a single line BBS, I probably could have left it at the default value (60 seconds).

There is a minor problem with larger timeouts, especially during script development. If the script is wrong, you will have to wait the full time before it can return a timeout error.

Line 62 is used for error checking. The TIMEOUT command returns a$="OK" if all went well or a$(1)=CHR$(7) if there was a problem. Since your script is automated, you definitely want to handle an error instead of letting things continue. Note that this script includes an error trap for almost every REQUEST made. Another example of error trapping is in line 84, showing a test for a$(1)=CHR$(7). Most of the QTPI REQUEST commands set the first bit of a$ to CHR$(7) if an error occurred. See the CSM documentation for more details on individual commands.

One of the few limits of QTPI is that when you send it a REQUEST to CAPTURE a log file, it really is just a toggle. If the log file is already open, it closes it. If it is closed, it opens it. QTPI always returns "OK" for either case. This is not a problem if you are running a brand new QTPI session or if you are using QTPI interactively. But with an automated script, it is always dangerous to assume anything. In this case, we are capturing messages in the log file. So if it is already open and we try to open it with the CAPTURE command, it will be closed and, even though the messages appear on the screen, they are not saved (unless QTPI's buffer is big enough). So what to do?

Well, it just so happens that QTPI recognises commands that require user input. So in line 70 we ASKN QTPI to open a window and ask the user if the capture log is already open. QTPI returns a$ equal to the response chosen from the menu, with response number 0 being the first one in the possible responses. Note that we were able to select the responses shown to the user with this command. Pretty versatile stuff. You might also wonder what the CHR$(0) is doing between the window prompt and the possible answers. QTPI scripting uses CHR$(0) (an unprintable character) as a delimiter to separate a string into different sections, here into the header and response sections.
If the response says that a log file is NOT open yet, we REQUEST that QTPI open one with the CAPTURE command and name it ram1_qboxlog_log, as seen in line 82.

Line 110 starts the DIAL process. If the name (or phone number) in this command string matches one in your

QTPI phone book, it will use the communication parameters from the phone book when it dials your modem. If you don't want to do this, then use a name or number that is not in the phone book and use REQUESTs to SET different parameters in QTPI. Here, QBOX is the actual name in my phone book, so the parameters are automatically and correctly set for me.

Depending on your modem, you will get some response back when you make the connection. With my modem, the connection line always starts with 'CONNECT'. QTPI will set a$ to this response line when it has completed a connection. Therefore line 112 tests that CONNECTion has actually been made before proceeding.

Now for the login. Line 130 tells QTPI to WAIT for a particular line, which in this case is an inquiry as to the caller's name. When this line is seen QTPI will return a$ = "OK". It not found within the timeout period, it will return a$(1) = CHR$(7). If "OK" the script will send the callers name as shown in line 140. The '\r' is used within QTPI to indicate the pressing of the <ENTER> key (a line return). Make sure you don't forget to use this whenever you would normally have to press the <ENTER> key at the end of an entry.

The login proceeds in lines 150-160 by WAITing for the Password prompt and then sending the password in response (you don't think that I was going to show you my real password, did you?). In case you are on a computer where someone might take a look at your script and get the password, you could always have QTPI prompt for a password manually with the ASKT command. Normally I place all such user interactive prompts back-to-back at the start of the script so as not to be interrupted after things get going.

An important note here - if your phone book entry has a login entry, do NOT duplicate it in your script. Both your script and QTPI will end up trying to send duplicate information mixed together which will guarantee confusion and a non-functional script. If you depend on the phone book entry to do the login, be sure to allow a large enough timeout for the login to finish before continuing or keep retrying from the script until your next operation returns successful (assuming that it will be a WAIT command).

Line 180 reduces QTPI to a button (ICONIFY) which will slightly speed up downloads or large message capture sessions since QTPI will not actually be writing to your screen. Later in this script we will HIT QTPI, bringing it back to a full size window. Notice that for now this line is REMARKED out. In debugging a script, you usually want to watch what is happening while it happens. Once you are sure everything works, go ahead and remove the REMark so that this line will do its job.

The next thing to be done is to switch to the message section, as shown in Lines 190 to 212. The capture in Listing one shows multiple line option menus. Here, we will just WAIT for the last item in that line ([V]ersion:) and then respond as appropriate by SENDing a 'm' for the [M]essage option. There is no '\r' used here because QBOX responds to single key answers from menus without the line return. If you did include the line return, things would get very confused.

Be careful when deciding how much of a line to WAIT for. If your selection accidentally occurs before you expect it, your script will get out of sync (break). For example, in this case we used '[V]ersion:'. If we had used just ':', odds are that a message would sometimes include a ':' and confuse the script. To be very safe, you could use '[Y]ell sysop, [V]ersion:' instead. It is unlikely a message would include exactly that entire sequence.

In this example, we will read messages from sections 1,2 and 4. You of course could read other sections and even all sections. To do All sections, you could do a loop within the script and repeat commands until a special line occurred within QTPI from QBOX. Again, we will leave this for the adventurous among you.

Lines 220-282 WAIT for certain prompt lines from QBOX. The script then responds by switching to message area 1 and then requests a continuous ('c') listing of the messages. This is repeated in lines 330 to 382 for section 2, and lines 430 to 482 for section 4. Note that the area # responses required a '\r' as they were not menu choices.

Now to exit and be done with it. Lines 510-520 do this by choosing the 'g'oodbye response instead of requesting another message area. Lines 530 through 560 finish going through the log off sequence. By now, the modem should be ready to hang up.

Line 590 sends a WAKE command to QTPI, bringing it to the front of the screen (and enlarging it to normal window if it was behind a button). Now we close the logfile in line 610. Don't forget to do this or else you will loose your message capture if you exit QTPI before manually closing it.

Line 610 finishes housekeeping by doing a FREECLIENT. Now your script is finished doing its job. I'll leave it up to you as to how you want to handle the errors. Be sure to do a FREECLIENT after handling errors just to be neat.

An observation: notice how the explanation got dramatically shorter as we followed the script. You will find yourself using just a few of the commands most of the time and they are straight forward. The results; shorter explanations and, of course, the ability to develop scripts easier and quicker after you do just a few.

Tips/Hints - To save you a little time, here is a group of some things that I found as I tested the scripting capabilities.

- if your script refuses to do a CLIENT 'xxx' command from SuperBasic, manually enter the FREECLIENT 'xxx' and try again

- in a SEND command, anything after the first blank will be sent. For example, 'SEND test' will send two blanks and then the word 'test'.

- if you have problems sending something that looks correct in your script, check the log file. If a non-printable character is being consistently sent before what you expect to send you can use one or more \b (backspace) characters at the front of your send text to backspace over the unexpected character. This occurred to me when trying to log into Compuserve.

- you can send unprintable characters such as a CTRL 'C' by sending their ASCII code. Either append the CHR$(value) to your send string or embed the character's ASCII value within the string with \nnn. nnn is the octal value to be sent for the character.

- even though you can run a script as a normal SuperBASIC program if you start it externally, it might be too slow to capture everything. If it works compiled, but not otherwise, this is probably the problem.

- even a compiled SuperBASIC program may miss something. In logging into Compuserve, I sent a CTRL 'C' and then expected a prompt for a user number. Sometimes my script was too late to see the prompt. To get around this, I temporarily set the TIMEOUT to a low value. If the prompt is not seen in the short TIMEOUT, then I assume that it has already appeared, send the response, and WAIT for the next prompt. If failure occurs now, it is time to check for other problems. Don't forget to reset your TIMEOUT to your normal value.

- if your script is constantly timing out, but everything works when you do it manually, try a larger TIMEOUT value

In Closing - Hopefully, this short 'tutorial' will help everyone become more efficient on-line. It really is simple once you try it. Jonathan has, as usual, done a great job. I welcome comments or questions. Just drop me a line. You can find me on the QBOX network, Compuserve (72567,3624), or the Internet (jdhunki@ibm.net). Hope to see you all on-line soon!

LISTING 1: QTPI Capture Log

```
++ QTPI Log opened 1995 Jun 04 23:21:49
ATZS0=0 Q0 V1 &C1&D201 3"H0%C0
OK
ATDT18102549878
```

CONNECT 14400/REL-LAPM-COMP
QBOX v1.19m
...
Press 'P' to pause or 'S' to stop output from QBox-USA.
Please enter your first and last name: **james hunkins**$_{lr}$
Searching user file...
Password: **********$_{lr}$
...
Main: [M]ail section, [F]ile section, [B]ulletin, [E]ditorial, [I]nfo,
[S]tatistics, [G]oodbye, [C]hange user settings, [U]sers list,
[A]nswer questionnaire, [Y]ell sysop, [V]ersion: **m**
...
[D]elete, [E]nter msg,
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **a**
Message area ("?" for list): **1**$_{lr}$
...
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **c**
...
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **a**
Message area ("?" for list): **2**$_{lr}$
...
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **c**

#60 Sat 3 Jun 1995, 14:37:30 (Received: Sat 3 Jun 1995, 15:00:26)
...
[D]elete, [E]nter msg,
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **a**
Message area ("?" for list): **4**$_{lr}$...
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **c**
...
[R]eply, [S]tatistics, [Q]uit, [G]oodbye:
Press <ENTER> for next message: **g**
Log off? (Y/n) **y**
Leave a message to John Impellizzeri? (y/N) **n**
...
Logged on : Mon 5 Jun 1995, 02:28:02
Logged off: Mon 5 Jun 1995, 02:29:09
+++
-- QTPI Log closed (00:02:23) 1995 Jun 04 23:24:12

[$_{lr}$ = line return non-printable character]

LISTING 2: Script Outline

open log file
dial
CONNECT 14400/REL-LAPM-COMP

```
login
      Please enter your first and last name:
       james hunkins\r
      Password:
      not_my_password\r

iconify
change to message section
      [V]ersion:
      m       ; go to messages
switch to areas(1,2,4), get messages
      Press <ENTER> for next message:
      a       ; area change
      Message area ("?" for list):
      1\r     ; area 1
      Press <ENTER> for next message:
      c       ; continuous display of messages

      Press <ENTER> for next message:
      a       ; area change
      Message area ("?" for list):
      2\r     ; area 2
      Press <ENTER> for next message:
      c       ; continuous display of messages

      Press <ENTER> for next message:
      a       ; area change
      Message area ("?" for list):
      4\r     ; area 4
      Press <ENTER> for next message:
      c       ; continuous display of messages

hit
quit
      Press <ENTER> for next message:
      g
      Log off? (Y/n)
      y
      Leave a message to John Impellizzeri? (y/N)
      n
close log
```

LISTING 3: QBOX MessageGathering SuperBASIC Script

```
10  REMark QBOX MAIL SCRIPT

45  REMark initialise items, open log file
50  CLIENT 'QTPI'
60  REQUEST 'QTPI','TIMEOUT 360',a$
62  IF (a$ <> 'OK') THEN perror(0)
70  REQUEST 'QTPI','ASKN Is capture log already open?'&CHR$(0) &'Yes¦No',a$
72  IF a$(1) = CHR$(7) THEN perror(1)
80  a = a$
```

Scripting in QTPI (listings) - (cont'd)

```
82  IF (a = 1) THEN REQUEST 'QTPI','CAPTURE  ram1_qboxlog_log',a$
84  IF a$(1) = CHR$(7) THEN perror(1)
100 REMark dial
110 REQUEST 'QTPI','DIAL QBOX',a$
112 IF NOT('CONNECT' INSTR a$) THEN perror(2)
120 REMark login
130 REQUEST 'QTPI','WAIT Please enter your first and last  name:',a$
132 IF a$(1) = CHR$(7) THEN perror(3)
140 REQUEST 'QTPI','SEND james hunkins\r',a$
142 IF a$(1) = CHR$(7) THEN perror(4)
150 REQUEST 'QTPI','WAIT Password:',a$
152 IF a$(1) = CHR$(7) THEN perror(5)
160 REQUEST 'QTPI','SEND not_my_password\r',a$
162 IF a$(1) = CHR$(7) THEN perror(6)

170 REMark iconify QTPI for speed enhancement/screen improvement
180 REMark REQUEST 'QTPI','ICONIFY',a$   : REMark always returns 'OK'
190 REMark change to message section
200 REQUEST 'QTPI','WAIT [V]ersion:',a$
202 IF a$(1) = CHR$(7) THEN perror(7)
210 REQUEST 'QTPI','SEND m',a$
212 IF a$(1) = CHR$(7) THEN perror(8)

220 REMark switch to areas(1,2,4), get messages
230 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
232 IF a$(1) = CHR$(7) THEN perror(9)
240 REQUEST 'QTPI','SEND a',a$
242 IF a$(1) = CHR$(7) THEN perror(9)
250 REQUEST 'QTPI','WAIT Message area ("?" for list):',a$
252 IF a$(1) = CHR$(7) THEN perror(10)
260 REQUEST 'QTPI','SEND 1\r',a$
262 IF a$(1) = CHR$(7) THEN perror(10)
270 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
272 IF a$(1) = CHR$(7) THEN perror(11)
280 REQUEST 'QTPI','SEND c',a$
282 IF a$(1) = CHR$(7) THEN perror(11)

330 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
332 IF a$(1) = CHR$(7) THEN perror(9)
340 REQUEST 'QTPI','SEND a',a$
342 IF a$(1) = CHR$(7) THEN perror(9)
350 REQUEST 'QTPI','WAIT Message area ("?" for list):',a$
352 IF a$(1) = CHR$(7) THEN perror(13)
360 REQUEST 'QTPI','SEND 2\r',a$
362 IF a$(1) = CHR$(7) THEN perror(10)
370 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
372 IF a$(1) = CHR$(7) THEN perror(11)
380 REQUEST 'QTPI','SEND c',a$
382 IF a$(1) = CHR$(7) THEN perror(11)

430 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
432 IF a$(1) = CHR$(7) THEN perror(9)
440 REQUEST 'QTPI','SEND a',a$
442 IF a$(1) = CHR$(7) THEN perror(9)
450 REQUEST 'QTPI','WAIT Message area ("?" for list):',a$
452 IF a$(1) = CHR$(7) THEN perror(10)
```

```
460 REQUEST 'QTPI','SEND 4\r',a$
462 IF a$(1) = CHR$(7) THEN perror(10)
470 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
472 IF a$(1) = CHR$(7) THEN perror(11)
480 REQUEST 'QTPI','SEND c',a$
482 IF a$(1) = CHR$(7) THEN perror(11)
500 REMark quit
510 REQUEST 'QTPI','WAIT Press <ENTER> for next message:',a$
512 IF a$(1) = CHR$(7) THEN perror(12)
520 REQUEST 'QTPI','SEND g',a$
522 IF a$(1) = CHR$(7) THEN perror(12)
530 REQUEST 'QTPI','WAIT Log off? (Y/n)',a$
532 IF a$(1) = CHR$(7) THEN perror(13)
540 REQUEST 'QTPI','SEND y',a$
542 IF a$(1) = CHR$(7) THEN perror(13)
550 REQUEST 'QTPI','WAIT Leave a message to John Impellizzeri? (y/N)',a$
552 IF a$(1) = CHR$(7) THEN perror(14)
560 REQUEST 'QTPI','SEND n',a$
562 IF a$(1) = CHR$(7) THEN perror(14)
580 REMark hit to redisplay QTPI window
590 REQUEST 'QTPI','WAKE',a$  : REMark always returns 'OK'
600 REMark close log
610 REQUEST 'QTPI','CAPTURE ram1_qboxlog_log',a$
980 FREECLIENT 'QTPI'
990 STOP
999 REMark ------------------------------------------
1000 DEFine PROCedure perror(error_no)
   >> add your own error code here <<
1980 FREECLIENT 'QTPI'
1985 STOP
1990 END DEFine
```

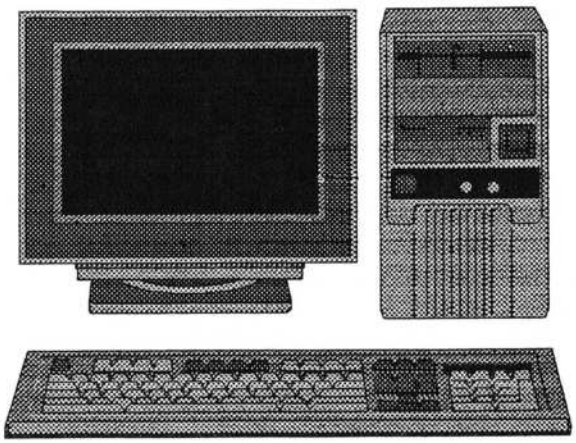
NESQLUG Fall-Fest (October 7, 8, & 9, 1995)

For a few weeks in the the Fall the prettiest place on earth is in the mountains of New England. The sugar maple leaves are ablaze with vibrant red leaves. Bill and Mary's house is right in the middle of it, and NESQLUG is having a weekend of QL learning and fun there. Anyone who is a member of any QL club is invited to come. We plan to have some serious tutorials on a variety of subjects including graphics, the C68 compiler, archive, and any other topic that you want to learn about, and we can entice the world's gurus to teach.

But the main reason to come is to see Bill and Mary's unique house which was in part designed on a QL. Bill's expert woodworking shows up at all kinds of unexpected places in the house. There is skylight that transmitts light through a coffee table, a separate bath house and a third story observation salon. On the other hand there is no running water - just a pump, no electricity except from solar panels, and an outside toilet (there is an inside composting toilet for wimps.)

We have a genuine hootenanny sing-a-long on Saturday night - everything from Frankie & Johnny to very old traditional folk songs. So bring your instruments and portable voice to sing around the campfire. There is plenty of room to put sleeping bag and for those of you that need things like running water there are nearby B and Bs and other suitable accomadations. There are several interesting historical sites nearby including St Gaudens and the longest covered bridge in the US.

Bill's house is located in New Hampshire about 13 miles south of the intersection I89 and I91. Write or call for directions: Bill Cable, RR 3 box 92, Cornish NH 03745 , USA; telephone 603 675-2218.



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Over 100mb of Adobe Illustrator Clip-Art files. These files will all load directly into Linedesign 2. Various themes are catered for such as Food, Backgrounds, Cartoons, Transport etc. S.A.E. or I.R.C. for Catalogue showing examples.

QUBIDE

QL AT/IDE Interface

Allows you to connect modern AT/IDE Hard Drives to your QL. A massive amount of storage space can now be made available for your programs and files. Compatible with SGC, GC, TC and most memory expansion systems, also Minerva & Hermes compatible.

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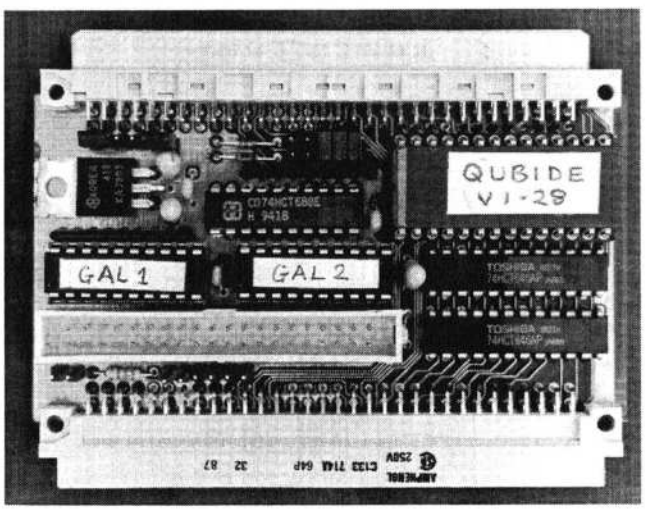

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A selection of new and used AT/IDE Hard Drives compatible with QUBIDE available. All Capacities from 40mb upto 420mb. Please ring or write for current stock availability.

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Q-emuLator

Trieste, ITALY - Daniele Terdina

"When a Macintosh thinks it is a QL"

Q-emuLator is a new software emulator for the QL that runs on Macintosh computers. It includes no hardware parts and it is not a QDOS compatible operating system like SMSQ.

Actually Q-emuLator is a Mac application that mimics the behaviour of the Motorola 68000 processor and QL hardware. So if you put (a dump of) a QL ROM in this emulated environment, it cannot tell the difference with a genuine QL, and so it runs as expected.

Daniele Terdina preparing to demonstrate Q-emuLator at the 6th Italian QL Meeting

The rom is not included in the package for copyright reasons, so the first thing to do is to copy it from your QL to a floppy disk (use the "SBYTES flp1_ql_rom,0,49152" command) and then put it in the same directory as the emulator.

Then you can launch the Mac application (i.e. Q-emuLator). Two windows will appear: one is the QL display, the other represents the two microdrive slots, each of them with its led which lights when the motor is on. Each slot can be dynamically associated with a directory of the Macintosh file system (both on floppies or hard drives), and is accessed with the flp_ and win_ devices as well as with mdv_. The files contain the usual QDOS information, like the data space for executables, and extra information can be provided for the MDV copy protection schemes to work.

Choosing the 'Start' command from a Macintosh menu loads the QL rom in memory and starts the emulation session; after the usual random dots invasion, you'll see the Sinclair copyright notice. Right after pressing F1 or F2, a BOOT file in the first MDV slot will be searched, and eventually the SuperBasic interpreter will be started..... just like on a genuine QL.

At the moment Q-emuLator is still under development. The working environment of QL emulated hardware includes: RAM and ROMs (including add-ons), a mdv/flp/win device driver which deals with Macintosh files, a real time clock, the 50/60Hz interrupt, the screen and the keyboard. Work is in progress for QL formatted floppies (DD and HD), sound and serial ports.

The flash bit in 8-colors display mode and the NETwork device will never be emulated, while support for mouse and for directories will be added when I'm able to find documentation about them.

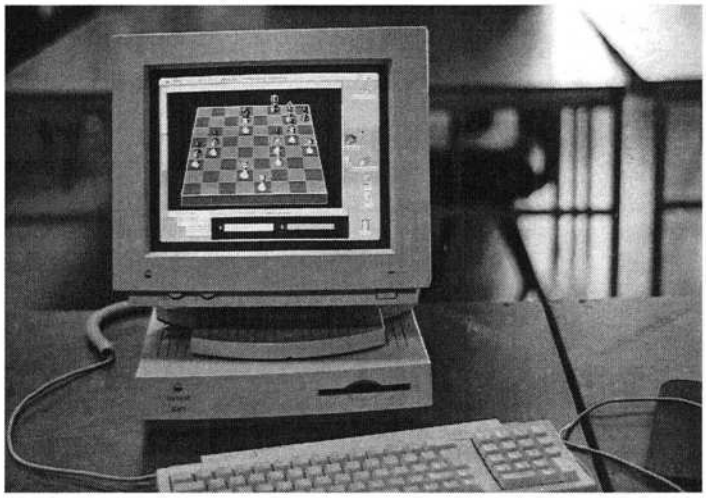
Keyboard emulation is particularly difficult because Macs have a wide range of keyboard layouts, all different from the QL's; autorepeat isn't implemented yet and many Macintosh have an hardware limitation that allows for a maximum of two keys to be detected down at the same time (plus any combination of the shift/control/alt keys). Last but not least, some key combinations (like ctrl-alt-arrow) are not available because they are used by the Mac operating system.

The current emulator is written in C, so its speed is not satisfactory: on a 68040 at 25MHz it runs at about 70% of the speed of an original QL. The C language has been chosen for its short development time and to ensure portability to the new PowerMacs, that have a PowerPC processor instead of the 680x0 of previous models.

Q-emuLator - (cont'd)

The project for an assembly version of the emulator (both for 68K and PowerPC) is ready; unfortunately I currently lack the time to implement it. Once rewritten in optimised assembly, the emulator should be a lot faster, the speed varying according to the Mac model. On a Power Macintosh it could work faster than a QL with the Super Gold Card, because the PowerPC is not only a fast processor, but also makes available a large number of registers which could hold most of the variables. However, actual performance depends on the percentage of cache misses, which is not easily predictable.

Another way to improve the speed is by rewriting QDOS critical routines, so they need not run under emulation. I've applied this technique to the "SuperBasic keyword-to-token translation" and the "SuperBasic memory allocation/release", resulting in a much faster loading of SuperBasic programs.



'Psion Chess' (QL version) running on a MAC

Now I'm rewriting some QDOS graphical commands using the MacOS calls and I've achieved blazing speed for scrolls and cls. Although this removes the screen bottleneck (writes to emulated video memory are very slow, because it is necessary to translate the pixels into Macintosh format), it won't help programs like games, which write directly to the screen. Another bottleneck is that every read or write to/from memory is checked in order to recognise the special cases of reads/writes to video or to memory mapped hardware ports and so that the Macintosh memory (outside the QL ram) doesn't get corrupted.

The Q-emuLator project started ten months ago because I wanted to be able to use (on my new Macintosh) the programs I wrote for my old computers, without the need for keeping three computers on my desktop.

As for my Olivetti M24 (an old DOS compatible computer) there was a nice DOS emulator for the Macintosh, but for the QL there was no substitute.

Add to this that writing an emulator could be interesting and fun for a programmer, and you have enough reasons to start working.

To tell the truth, there was another reason as well: I missed my first real computer, on which I learned programming.

First I wrote the 68k emulator testing it with simple assembly code snippets. Two months later I wrote the display emulation portion and tried to execute the QL rom. I saw the usual dots slowly filling the screen, but no prompt appeared. After correcting a lot of bugs and writing the keyboard driver, I was finally able to write and run the first SuperBasic program.

The core of the emulator was ready and since then I added the mdv/win/flp device driver and optimised display handling by writing directly to the screen instead of using the MacOS calls.

Now Q-emuLator is very stable and the compatibility is excellent: among those tested, there is only one QL program not working properly, due to the lack of the keyboard autorepeat. Another old game doesn't work at all but this is because it has a bug, although on a QL it doesn't crash because it makes good use of an irreproductable and undocumented behaviour of the hardware. When I started my work on the emulator I didn't know of anyone still using a QL, so I thought it was a dead computer, but as the emulator was growing I found out about a QL-only BBS here in Italy. I called immediately and discovered that the QL was far from dead.

Q-emuLator - (cont'd)

However, I also discovered that while Q-emuLator was adequate for emulating my standard QL on a 68040 Mac, it was too slow for the needs of a modern QL user, running Miracle or other cards, of which I had previously never heard. Obviously Q-emuLator will never become an alternative to genuine QLs or to the QXL because you have to buy a Mac first, which is very expensive, but it might be very useful if you would buy a Mac anyway, so you can still view your old documents, avoid buying a costly Mac word-processor if Quill is all that you need, and, why not, continue playing your old favourite games.

Q-emuLator is going to be a commercial product and could sell for about $35 for a version capable of standard QL or better speed on most Macintosh models. The price would increase a little if I will find the time to write a much faster assembly version. I hope that the program and a free (but limited) demo will be available in a few months. They will work on any Macintosh with system 6.0.7 or later and will require 4M of ram, but a 68020 or better processor is recommended.

Daniele Terdina - Internet e-mail: sistest@ictp.trieste.it
Fidonet matrix/netmail: Daniele Terdina 2:331/123 (QITALY BBS)

Additional notes by Eros Forenzi. - There has been quite a lot of interest in the QL Emulator for the Macintosh, right after the Italian QL Meeting on May 7th. Bob Dyl recently phoned me to ask for more information about the emulator and also some pictures, so I thought it was a good idea to ask the author of it directly . Daniele kindly agreed to write an article for IQLR and I had the great pictures you see in the article above.

I use a Mac in my office every day (8Mb LC475). On my office desktop there is also a 4Mb 486 PC with a 25Mhz 8Mb QXL Inside. Needless to say, I'm eagerly awaiting Q-emuLator for my Mac. Some of our Italian QL Users have a PC or a Mac in our offices (a QL would be better still!) and it is really good news to be able to work in our more efficient environment on foreign machines.

At home I have a "classic" QL System (Super Gold Card and QUBIDE) housed in a tower PC case. I do not plan to buy a Mac for home but I cannot easily take QLs to my office. So, here is the best of both worlds: a powerful genuine QL at home and a "hidden" QL in the office..... ssssh don't tell the Boss :-)

(BTW, sometimes I ask some of my collegues or consultants: "Guess what computer is this?" in front of my fully loaded QXL QPAC setup. I usually get amusing answers: "Are you connected to some Internet WWW site?", "Are you using the new Windows 95?", "Oh, is this perhaps the new Mac System 8?" and the like.....)

New USE For an Old Silicon Friend

Charleston, West Virginia, USA - Charles W. Spann

A human (as opposed to silicon) friend with a photo lab asked my assistance in solving a problem. The photo printer (original cost in the mid-$70K range), which is computer controlled, was on the blink due to a dead display - a single line flourescent dot-matrix readout. It was analogous to trying to use your computer with the monitor off. Since several chips used in the display are "custom" and therefore not available through "normal" sources, the possibilities included factory repair/replacement (in the $1000+ range) or an alternative display.

While experimenting with the SER2 port on my QL, I found I could display something - but it was not readable. Since my friend told me what I should be seeing, I was eventually able to "break the code". The photo computer does NOT use ASCII! The letters and numbers were block shifted in several groups. I wrote a simple looping program to INPUT character CODEs, shift them by the necessary values and display the decoded CHR$ message on the screen (a mini TV). Saving this program as a BOOT program on a microcartridge meant that my friend didn't even need to learn how to operate the QL other than pushing F2. The cost was about $100 for a QL (he already had a small TV set). Using a QL made this "fix" rather easy since it has the SERial ports, boots up from microcartridge easily, displays to a TV, has modest cost and for me, programs in a BASIC-level language.

Late Breaking News !!!

JOCHEN MERZ SOFTWARE - Jochen would like everyone to know that as ofthe 13th of July 1995 his telephone numbers WILL BE CHANGING TO:

Telephone:	0203 502 011
Fax:	0203 502 012
Bulletin Board:	0203 502 013

Jochen hopes everything will go smoothly. The well known 0203 501 274 will stay valid until the new lines are activated. At that time an answering machine will be installed to inform callers of the numbers listed above.

PROGS - Have released the latest upgrade to their very popular LINEdesign (v 2.07) package. As an added bonus and to make life easier for users, they have developed a Hard Disk installation program for LINEdesign. The upgrade cost is BEF 500 and you need to send them your LINEdesign program disk and the Clip Art disk TR-2 (which will include the installation program). Please note their advert for their address and tel/fax information.

QUBBSoft P/D - Ron Dunnett in co-operation with Zeljko Nastasic of Croatia have introduced the "QUBIDE Expander Cable" which will allow Qubide users to connect up to 4 master/slave combinations of IDE devices. With the recent talk of the possibilities (in the foreseeable future) of QLer's using Tape Back Up Drives and CD ROMs, the Expander Cable will really come in handy. Another use, could be for the installation of multiple Hard Drives without the hassle of changing jumper settings to make one a slave and one a master, they could all be masters. The cost is a mere £15 plus postage and packing. Please Note QUBBESoft's advert elsewhere in this issue.

IQLR - Has obtained a limited quantity of PC type "Acer Black Keyboards" that are compatible with the new "superHermes" interface and a supply of TEAC Black face plates and buttons for TEAC 3.5" floopy disk drives. With the interest in our last issue's BLACK BEAUTY we have compiled a list of North American suppliers of Black items, from Tower Cases to SVGA Monitors and everything in between, contact IQLR for details.

IQLR three ring binders ($8.00 plus shipping) and Laminated Indexes ($4.00) to Volume 4 are now available from our North American office. BACK ISSUES OF VOLUMES 1 THROUGH 4 have been completely SOLD OUT and reprints are not anticipated.

For Sale - For Sale - For Sale

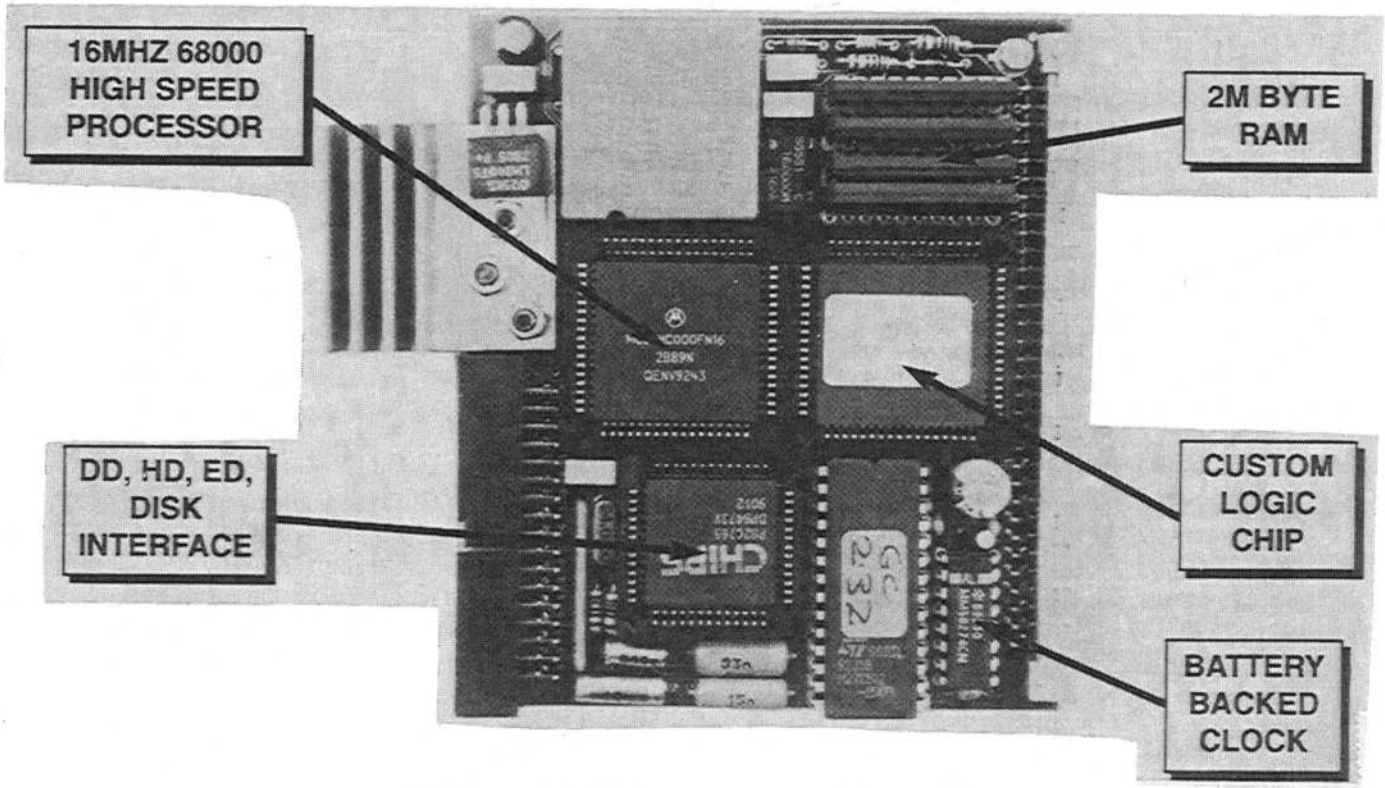
IQLR has recently obtained a large selection of QL hardware and software. Much of which could be considered as "collector's items" including:

Sinclair (branded) 3.5" disk drives with Micro P interface
OS-68 from GST (intended as the original QL operating system

just to name a few. Included in the selection are: QLs, Printers, Monitors, 3.5" disk drives, Memory upgrades, Minerva, Keyboard 90 interfaces, Trump Card, Gold Card, QIMI mouse interface, Microdrive Cartridges and boxes, early software including most of the computer languages, years of QL Worlds and Quanta magazines etc., etc.

If you've been looking for a yard sale, this is it !! Contact IQLR at +1 401 849 3805 for details and availability.

MIRACLE SYSTEMS



QL GOLD CARD

Recycled Gold Card £100 inc. (£90 outside EU)

This is the expansion that has been revolutionising the QL. It is very easy to fit , it simply plugs into the expansion port at the left hand of the QL, and once fitted it will instantly increase the execution speed of the QL by about 4 times due to the presence of a 16MHz 68000 on board. There is 2M of fast 16 bit RAM of which QDOS sees a contiguous 1920K. The remainder is used for shadowing the QL's ROM and display memory and for the GOLD CARD's own code.

There is a disk interface which can access 3 mechanisms (4 with the DISK ADAPTER) of three different densities, DD (double density, 720K), HD (high density, 1.44M) and ED (extra high density, 3.2M) in any mix. The disk interface connector is the same type that was fitted to the Trump Card so most QL compatible disk drives can be used.

> Please note: that DD drives still give a capacity of 720K per diskette.
> Our DUAL ED DISK DRIVE allows the GOLD CARD to access DD, HD and ED diskettes.

Another feature is the battery backed clock. When the QL is switched on the contents of the clock are copied into the QL's clock so that the time and date are correct. The firmware in the ROM gives the GOLD CARD all the functionality of the Trump Card like TOOLKIT II and there is a sub-directory system for floppy and RAM disks.

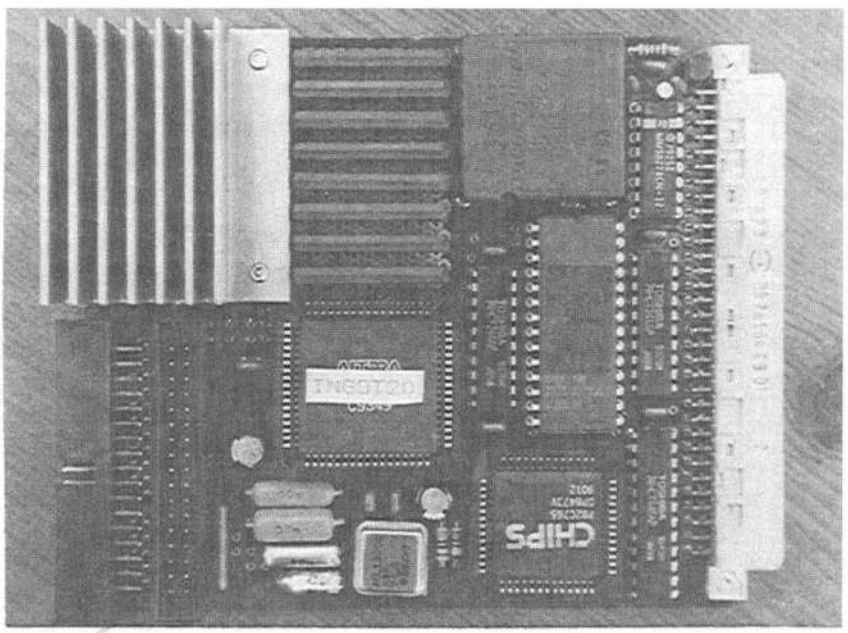
Physically the GOLD CARD is about half the size of the TRUMP CARD and so fits almost all within the QL. Its current consumption is well under allowable maximum so no special power supply is required. The GOLD CARD comes with a 14 day money back guarantee and a 1 year warranty.

MIRACLE SYSTEMS

SUPER GOLD CARD

"The Pathway to Future QL Development"

Briefly...



* *3 Times Faster*
* *68020 processor*
* *4M bytes of RAM*
* *CENTRONICS port*
* *Supports 4 Disk Drives*
* *2 Year warranty*

What is it ?

The SUPER GOLD CARD is the first major revision of our highly successful Gold Card. We have replaced the 68000 processor with the 68020 so programs run about 3 times faster and have expanded the memory to 4M bytes. Additional improvments include a fast CENTRONICS printer port, 2 double disk drive ports, virtually crash-proof clock and a socket to optionally connect 5V. We also supply a 3 meter Centronics printer cable at no additional cost.

The deal...

£275 including VAT - (£240 outside EU)

(Includes postage, a 14 day money back guarantee and a 2 year warranty.)

or you can send us your GOLD CARD and:

£175 including VAT - (£150 outside EU)

You can also deduct a further £15 for a returned QL CENTRONICS and/or £10 for a DISK ADAPTER.

We are happy to accept payment by sterling cheque made payable to "MIRACLE SYSTEMS", or by quoting your MASTERCARD/VISA/SWITCH credit card number and expiry date (SWITCH card holders please also quote issue number).

Recycled Items...

Gold Card £100 (outside EU £90) QL Centronics £ 15 Disk Adapter £ 10

(Recycled items carry a 1 year warranty.)

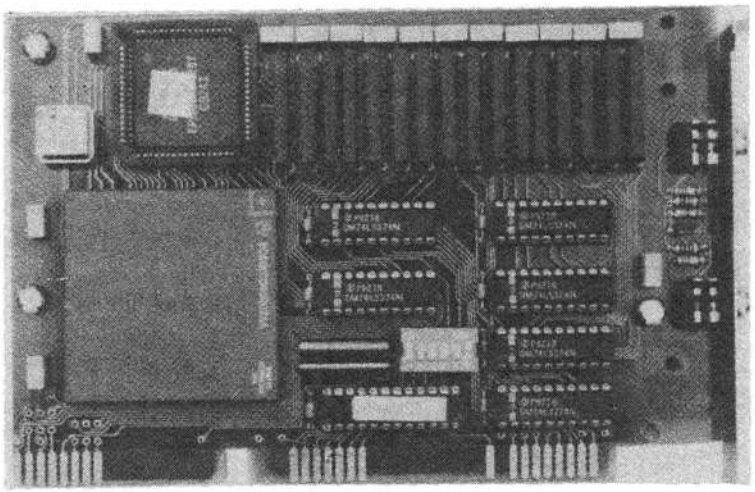
TELEPHONE/FAX: (01454) 883 602

MIRACLE SYSTEMS LTD - 20 Mow Barton, Yate, Bristol, BS17 5NF, UK

MIRACLE SYSTEMS

QXL
Now With
SBASIC

SuperBasic Compatible Interpreter



* *68EC040*
* *4M or 8M of RAM*
* *Multitasking SBASIC*
* *QL Network ports*
* *Toolkit II*
* *QDOS or MSDOS floppies*
* *Uses PC's keyboard, floppy & hard disks, parallel/serial ports and mouse.*

This is the card that plugs into a standard 8 or 16 bit ISA slot on a PC and allows the PC to run QL programs - FAST. A new QDOS compatible operating system from Tony Tebby called SMSQ, which is supplied on a disk, includes Toolkit II and gives you the familiar QL environment. SMSQ includes SBASIC a multitasking SuperBasic compatible interpreter.

Installation is simple; plug the QXL into a spare slot and copy 2 files from the supplied disk onto the hard drive and you're ready to go. From the DOS prompt type QXL and the PC will transform itself into a QL before your very eyes. If at any stage you wish to return to DOS just press CTRL-ScrollLock. You can later resume the QL session by typing QXL/ which takes you back to where you left off. For POINTER ENVIRONMENT programs SMSQ can be configured to handle 3 screen resolutions in addition to the standard 512x256 QL screen. Your PC must have EGA or VGA graphics. EGA allows 640x350 whereas VGA also allows 640x480. Most SVGA cards will allow SMSQ to use 800x600 as well.

PRICING:

QXL (4M)	£280 including VAT - (£245 outside EU)
QXL (8M)	£395 including VAT - (£345 outside EU)

or you can send us your GOLD CARD and

£180 including VAT - (£155 outside EU) for a 4M - QXL

£295 including VAT - (£255 outside EU) for a 8M - QXL

You can also deduct a further £15 for a returned QL CENTRONICS and/or £10 for a DISK ADAPTER.

We are happy to accept payment by sterling cheque made payable to "MIRACLE SYSTEMS", or by quoting your MASTERCARD/VISA/SWITCH credit card number and expiry date (SWITCH card holders please also quote issue number).

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